

# **NUMERICAL STANDARDS**

**PUBLIC HEARING DRAFT**  
**PROPOSED AMENDMENTS TO 310 CMR 40.0000, THE MASSACHUSETTS CONTINGENCY PLAN**

**1. Notes to Reviewers:** *The proposed standards, Upper Concentration Limits, Reportable Concentrations and Reportable Quantities that are presented in the following tables are the results of a thorough reevaluation of the methodology used to calculate these values. The documentation of the proposed standards, including the Excel spreadsheets that calculate the values, are available on-line at <http://www.Mass.Gov/dep/bwsc/files/workgrps/numbers/numbers.htm>. Reviewers are encouraged to read the available documentation and examine the spreadsheets to better understand and comment of the proposed changes.*

**2. Note to Reviewers:** *DEP seeks comment on the use of US EPA-published Cancer Slope Factors (“CSF’s”) and/or Unit Risk Values (“UR’s”).*

1. *Pending the finalization of the US EPA Draft Cancer Risk Guidelines and the EPA update of its toxicity values, should MA DEP continue to use the IRIS-published values?*
2. *Should MA DEP continue to use the US EPA-published CSF’s and UR’s, where they exist, for chemicals considered to be Class C carcinogens? Three options are under consideration:*
  - a. *Continue to use the IRIS-published values for Class C carcinogens consistent with DEP policy. The published values represent US EPA consensus on the data available for these chemicals. CSF’s and UR’s are published when adequate data to quantify Carcinogenicity exists. In the absence of adequate data, EPA refrains from publishing a value.*
  - b. *For Class C Carcinogens, the noncancer risk toxicity value (e.g., Reference Dose) can be modified by a 10-fold safety factor to account for potential carcinogenic effects. DEP has used this alternative for specific Class C carcinogens without published CSF’s or UR’s (see the drinking water guideline for MTBE).*
  - c. *For Class C carcinogens, DEP could refrain from quantitatively evaluating the carcinogenicity until the US EPA finalizes the Draft Cancer Risk Guidelines, reviews the data for each chemical, and updates the toxicity profiles sometime in the future.*

**3. Note to Reviewers:** *The U.S. Army has raised substantive comments on the toxicity information used by DEP to calculate standards for the explosive RDX (CAS 121-82-4). Following standard practice, DEP has adopted the U.S. EPA values currently published in the EPA’s online database of toxicological values, IRIS. The data published on IRIS are consensus values and are used nation-wide in federal, state and private risk assessments. The U.S. Army is pursuing changes to the IRIS data for RDX and has asked that DEP present alternative toxicity information for this chemical. DEP has agreed to include a summary of the U.S. Army’s position as part of this package to better inform reviewers. The following summary has been prepared by the U.S. Army and does not represent a Massachusetts DEP proposal.*

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**U.S. Army Note To Reviewers on RDX Toxicity:**

The EPA's current value for potential cancer effects for RDX (an explosive) is based on almost 20 year old studies. Understanding of the carcinogenic process has improved greatly since this study was completed (1984) and it is now understood that some lesions that were formerly classified as carcinomas and adenomas may have been misidentified. Reevaluation of the pathology slides from the original study, by an expert in rodent pathology and by the Pathology Working Group of the National Institute of Environmental Health Sciences produced findings with a lower incidence of adenoma and carcinoma than those originally reported. The pathology findings in the reevaluation are evidence that the potential cancer potency of RDX was overestimated in the original study and the EPA is now reviewing the re-evaluation to correct or withdraw the cancer slope value currently listed in IRIS. The new Cancer Slope Factor value ( $3.2E-2$  mg/kg-d) is less steep than the former value ( $1.1E-1$  mg/kg-day) based on the new pathology findings. The new value is superior to the former value because it is a product of a more modern (more accurate) pathological/histological assessment and was derived using the EPA's Benchmark Dose methods of data analysis.

Because of the very weak nature of the cancer effects of RDX, the drinking water level for RDX used by the EPA was derived from the reference dose. The reference dose, in turn, is based on the most sensitive non-cancer endpoint. To protect for the possible carcinogenic effects, an additional 10-fold uncertainty (safety) factor is used. Therefore, the EPA lifetime Health Advisory in groundwater for RDX is 2 ppb.

It is the EPA policy to use the reference dose for calculation of Health Advisories when data for a cancer effect is unclear. However, it has been the policy of the Commonwealth of Massachusetts to calculate drinking water levels using the Cancer Slope Factor if it is available.

If the cancer slope factor were to be used the methodology used by EPA Regions 9 and 3 to calculate remediation goals for carcinogenic substances in groundwater uses more realistic assumptions than the standard default values and are normally used for this derivation. The methodology believes that it is very unlikely that a person would consume 2 liters of water a day from birth to age 70, which is the national default value. The age-adjusted value of 1.1 liter per day is more accurate. This methodology with the new carcinogen slope factor of  $3.2E-2$  (mg/kg-day)<sup>-1</sup> and the default target risk of 1 in a million yields a water concentration for RDX of 2.1 ppb. This level is identical to the lifetime health advisory published by the EPA - Office of Drinking Water. Since the carcinogen risk based concentration using the new slope factor and the lifetime Health Advisory values are in good agreement this argues for setting 2 ppb as a target level for RDX in groundwater.

Comments are solicited on the following:

1. Should MADEP use the EPA Health Advisory for RDX to set a standard?
2. Should MADEP use the new cancer slope factor to calculate an RDX standard?
3. Should MADEP use the methodology employed by EPA Region 9 and 3 to calculate an RDX standard?

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**4. Note to Reviewers:** *In addition to the changes to the numerical values themselves, the following changes are proposed for the footnotes in MCP Tables 1 through 6 in Subpart I.*

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**NOTE:** All concentrations of oil and/or hazardous material in soil are calculated and presented on a dry weight/dry weight basis.

**NA** - Not Applicable

[^ - The Total Chromium standard is applicable in the absence of species-specific data for Chromium III and Chromium VI.](#)

\* - Cyanide expressed as free or physiologically available cyanide. Physiologically Available Cyanide (PAC). In the absence of measured Physiologically Available Cyanide, the standard is applicable to Total Cyanide.

\*\* - Dioxins expressed as 2,3,7,8-TCDD equivalents.

† - The Total Petroleum Hydrocarbon (TPH) standard may be used as an alternative to the appropriate combinations of the Aliphatic and Aromatic Hydrocarbon Fraction standards. The use of the general TPH standard is a valid option only for C9 and greater petroleum hydrocarbons; it is not appropriate for the characterization of risks associated with lighter (gasoline-range) hydrocarbons.

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**MCP Table 1 - 310 CMR 40.0974(2)****Method 1 Groundwater Standards**

OIL OR HAZARDOUS MATERIAL	GW-1			
	Current μg/L	Proposed μg/L	Up? Down?	basis
ACENAPHTHENE	20	20	Odor	
ACENAPHTHYLENE	300	50	Down	Noncancer
ACETONE	3000	3000		ORSGL
ALDRIN	0.5	0.5		PQL
ANTHRACENE	2000	500	Down	Noncancer
ANTIMONY	6	6		MMCL
ARSENIC	50	10	Down	PMCL
BARIUM	2000	2000		MMCL
BENZENE	5	5		MMCL
BENZO(a)ANTHRACENE	1	1		PQL
BENZO(a)PYRENE	0.2	0.2		MMCL
BENZO(b)FLUORANTHENE	1	1		PQL
BENZO(g,h,i)PERYLENE	300	70	Down	Noncancer
BENZO(k)FLUORANTHENE	1	1		PQL
BERYLLIUM	4	4		MMCL
BIPHENYL, 1,1-	400	0.8	Down	Noncancer
BIS(2-CHLOROETHYL)ETHER	30	30		PQL
BIS(2-CHLOROISOPROPYL)ETHER	30	30		PQL
BIS(2-ETHYLHEXYL)PHTHALATE	6	6		MMCL
BROMODICHLOROMETHANE	5	3	Down	PQL
BROMOFORM	5	4	Down	PQL
BROMOMETHANE	10	10		ORSGL
CADMIUM	5	5		MMCL
CARBON TETRACHLORIDE	5	5		MMCL
CHLORDANE	2	2		MMCL
CHLOROANILINE, p-	30	20	Down	PQL
CHLOROBENZENE	100	100		MMCL
CHLOROFORM	5	5		ORSGL
CHLOROPHENOL, 2-	10	10		PQL
CHROMIUM (TOTAL)	100	100		MMCL
CHROMIUM(III)	100	100		MMCL for Total Chromium
CHROMIUM(VI)	50	100	Up	MMCL for Total Chromium
CHRYSENE	2	2		Cancer
CYANIDE	200	200		MMCL
DIBENZO(a,h)ANTHRACENE	0.5	0.5		PQL
DIBROMOCHLOROMETHANE	5	2	Down	PQL
DICHLOROBENZENE, 1,2- (o-DCB)	600	600		MMCL
DICHLOROBENZENE, 1,3- (m-DCB)	600	40	Down	Noncancer
DICHLOROBENZENE, 1,4- (p-DCB)	5	5		MMCL
DICHLOROBENZIDINE, 3,3'-	80	80		PQL
DICHLORODIPHENYL DICHLOROETHANE	0.1	0.2	Up	Cancer
DICHLORODIPHENYL DICHLOROETHYLENE	0.1	0.1		Cancer
DICHLORODIPHENYLTRICHLOROETHANE	0.3	0.3		PQL

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OIL OR HAZARDOUS MATERIAL	GW-1			
	Current μg/L	Proposed μg/L	Up? Down?	basis
DICHLOROETHANE, 1,1-	70	70		ORSGL
DICHLOROETHANE, 1,2-	5	5		MMCL
DICHLOROETHYLENE, 1,1-	7	7		MMCL
DICHLOROETHYLENE, CIS-1,2-	70	70		MMCL
DICHLOROETHYLENE, TRANS-1,2-	100	100		MMCL
DICHLOROMETHANE	5	5		MMCL
DICHLOROPHENOL, 2,4-	10	10		PQL
DICHLOROPROPANE, 1,2-	5	5		MMCL
DICHLOROPROPENE, 1,3-	0.5	0.5		ORSGL
DIELDRIN	0.1	0.1		PQL
DIETHYL PHTHALATE	6000	2000	Down	Noncancer
DIMETHYL PHTHALATE	50000	30000	Down	Noncancer
DIMETHYLPHENOL, 2,4-	100	60	Down	Noncancer
DINITROPHENOL, 2,4-	200	200		PQL
DINITROTOLUENE, 2,4-	30	30		PQL
DIOXANE, 1,4-		50		ORSGL
ENDOSULFAN	40	20	Down	Noncancer
ENDRIN	2	2		MMCL
ETHYLBENZENE	700	700		MMCL
ETHYLENE DIBROMIDE (EDB)	0.02	0.02		MMCL
FLUORANTHENE	300	90	Down	Noncancer
FLUORENE	300	70	Down	Noncancer
HEPTACHLOR	0.4	0.4		MMCL
HEPTACHLOR EPOXIDE	0.2	0.2		MMCL
HEXACHLOROBENZENE	1	1		MMCL
HEXACHLOROBUTADIENE	0.6	0.6		PQL
HEXACHLOROCYCLOHEXANE, GAMMA	0.2	0.2		MMCL
HEXACHLOROETHANE	8	8		PQL
HMX		200		Noncancer
INDENO(1,2,3-cd)PYRENE	0.5	0.5		PQL
LEAD	15	15		AL
MERCURY	2	2		MMCL
METHOXYCHLOR	40	40		MMCL
METHYL ETHYL KETONE	350	350		ORSGL
METHYL ISOBUTYL KETONE	350	350		ORSGL
METHYL MERCURY	0.7	0.3	Down	Noncancer
METHYL TERT BUTYL ETHER	70	70		ORSGL
METHYLNAPHTHALENE, 2-	10	10		PQL
NAPHTHALENE	20	140	Up	ORSGL
NICKEL	100	100		ORSGL
N-NITROSODIMETHYLAMINE (NDMA)		0.01		PQL
PENTACHLOROPHENOL		1		MMCL
PERCHLORATE		1		PQL

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OIL OR HAZARDOUS MATERIAL	GW-1			
	Current μg/L	Proposed μg/L	Up? Down?	basis
PETROLEUM HYDROCARBONS	200	200		ORSGL
Aliphatics				
C5 to C8	400	400		ORSGL
C9 to C12	4000	4000		ORSGL
C9-C18	4000	4000		ORSGL
C19 to C36	5000	5000		ORSGL
Aromatics				
C9 to C10	200	200		ORSGL
C11 to C22	200	200		ORSGL
PHENANTHRENE	300	80	Down	Noncancer
PHENOL	4000	900	Down	Noncancer
POLYCHLORINATED BIPHENYLS (PCBs)	0.5	0.5		MMCL
PYRENE	200	80	Down	Noncancer
RDX		0.8		PQL
SELENIUM	50	50		MMCL
SILVER	40	100	Up	SMCL
STYRENE	100	100		MMCL
TCDD, 2,3,7,8- (equivalents)	0.00003	0.00003		MMCL
TETRACHLOROETHANE, 1,1,1,2-	5	5		PQL
TETRACHLOROETHANE, 1,1,2,2-	2	2		PQL
TETRACHLOROETHYLENE	5	5		MMCL
THALLIUM	2	2		MMCL
TOLUENE	1000	1000		MMCL
TRICHLOROBENZENE, 1,2,4-	70	70		MMCL
TRICHLOROETHANE, 1,1,1-	200	200		MMCL
TRICHLOROETHANE, 1,1,2-	5	5		MMCL
TRICHLOROETHYLENE	5	5		MMCL
TRICHLOROPHENOL, 2,4,5-	200	200		Noncancer
TRICHLOROPHENOL 2,4,6-	10	10		PQL
VANADIUM	50	30	Down	Noncancer
VINYL CHLORIDE	2	2		MMCL
XYLENES (Mixed Isomers)	10000	10000		MMCL
ZINC	2000	5000	Up	SMCL
Summary:				
		Up:	5	4%
		Down:	21	18%
		No Change:	88	77%

**MCP Table 1 - 310 CMR 40.0974(2)****Method 1 Groundwater Standards**

OIL OR HAZARDOUS MATERIAL	Current	Proposed	GW-2		basis
			μg/L	μg/L	
ACENAPHTHENE		NA	NA	NA, > Solubility	
ACENAPHTHYLENE		NA	NA	NA, > Solubility	
ACETONE	50,000	50,000		Ceiling Value	
ALDRIN	0.50	1 Up		Cancer Risk	
ANTHRACENE	NA	NA	NA, > Solubility		
ANTIMONY	NA	NA	NA		
ARSENIC	NA	NA	NA		
BARIUM	NA	NA	NA		
BENZENE	2,000	2,000	Background Indoor Air		
BENZO(a)ANTHRACENE	NA	NA	NA, > Solubility		
BENZO(a)PYRENE	NA	NA	NA, > Solubility		
BENZO(b)FLUORANTHENE	NA	NA	NA, > Solubility		
BENZO(g,h,i)PERYLENE	NA	NA	NA, > Solubility		
BENZO(k)FLUORANTHENE	NA	NA	NA, > Solubility		
BERYLLIUM	NA	NA	NA		
BIPHENYL, 1,1-	NA	100	Threshold Risk		
BIS(2-CHLOROETHYL)ETHER	100.00	30 Down	Water PQL		
BIS(2-CHLOROISOPROPYL)ETHER	400.00	400	Cancer Risk		
BIS(2-ETHYLHEXYL)PHTHALATE	50,000.00	NA Up	NA, > Solubility		
BROMODICHLOROMETHANE	NA	8	Cancer Risk		
BROMOFORM	800.00	700 Down	Cancer Risk		
BROMOMETHANE		1	Water PQL		
CADMIUM	NA	NA	NA		
CARBON TETRACHLORIDE	20.00	2 Down	Background Indoor Air		
CHLORDANE	NA	NA	NA, > Solubility		
CHLOROANILINE, p-	NA	50,000	Ceiling Value		
CHLOROBENZENE	1,000.00	200 Down	Background Indoor Air		
CHLOROFORM	400.00	50 Down	Background Indoor Air		
CHLOROPHENOL, 2-	NA	900	Threshold Risk		
CHROMIUM (TOTAL)		NA	NA		
CHROMIUM(III)	NA	NA	NA		
CHROMIUM(VI)	NA	NA	NA		
CHRYSENE	NA	NA	NA, > Solubility		
CYANIDE	NA	NA	NA		
DIBENZO(a,h)ANTHRACENE	NA	NA	NA, > Solubility		
DIBROMOCHLOROMETHANE	NA	20	Cancer Risk		
DICHLOROBENZENE, 1,2- (o-DCB)	10,000.00	2,000 Down	Threshold Risk		
DICHLOROBENZENE, 1,3- (m-DCB)	10,000.00	2,000 Down	Threshold Risk		
DICHLOROBENZENE, 1,4- (p-DCB)	30,000.00	200 Down	Background Indoor Air		
DICHLOROBENZIDINE, 3,3'-	NA	NA	NA, > Solubility		
DICHLORODIPHENYL DICHLOROETHANE	NA	NA	NA, > Solubility		
DICHLORODIPHENYLDICHLOROETHYLENE	NA	NA	NA, > Solubility		
DICHLORODIPHENYLTRICHLOROETHANE	NA	NA	NA, > Solubility		

**MCP Table 1 - 310 CMR 40.0974(2)****Method 1 Groundwater Standards**

OIL OR HAZARDOUS MATERIAL	Current	Proposed	GW-2		basis
			μg/L	μg/L	
DICHLOROETHANE, 1,1-	9,000.00	1,000	Down		Threshold Risk
DICHLOROETHANE, 1,2-	20.00	6	Down		Cancer Risk
DICHLOROETHYLENE, 1,1-	1.00	80	Up		Threshold Risk
DICHLOROETHYLENE, CIS-1,2-	30,000.00	100	Down		Threshold Risk
DICHLOROETHYLENE, TRANS-1,2-	20,000.00	90	Down		Threshold Risk
DICHLOROMETHANE	50,000.00	10,000	Down		Background Indoor Air
DICHLOROPHENOL, 2,4-	NA	50,000			Ceiling Value
DICHLOROPROPANE, 1,2-	9.00	3	Down		Cancer Risk
DICHLOROPROPENE, 1,3-	5.00	5			Water PQL
DIELDRIN	NA	5			Cancer Risk
DIETHYL PHTHALATE	NA	50,000			Ceiling Value
DIMETHYL PHTHALATE	NA	50,000			Ceiling Value
DIMETHYLPHENOL, 2,4-	NA	20,000			50% Odor Threshold
DINITROPHENOL, 2,4-	NA	50,000			Ceiling Value
DINITROTOLUENE, 2,4-	NA	10,000			Cancer Risk
DIOXANE, 1,4-		5,000			Cancer Risk
ENDOSULFAN	NA	NA			NA, > Solubility
ENDRIN	NA	NA			NA, > Solubility
ETHYLBENZENE	30,000.00	20,000	Down		Threshold Risk
ETHYLENE DIBROMIDE (EDB)	3.00	2	Down		Cancer Risk
FLUORANTHENE	NA	NA			NA, > Solubility
FLUORENE	NA	NA			NA, > Solubility
HEPTACHLOR	NA	1			Water PQL
HEPTACHLOR EPOXIDE	NA	10			Cancer Risk
HEXACHLOROBENZENE	NA	1			Water PQL
HEXACHLOROBUTADIENE	1.00	1			Cancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA	NA	60			Cancer Risk
HEXACHLOROETHANE	10.00	100	Up		Cancer Risk
HMX		NA			NA, > Solubility
INDENO(1,2,3-cd)PYRENE	NA	NA			NA, > Solubility
LEAD	NA	NA			NA
MERCURY	NA	NA			NA
METHOXYCHLOR	NA	NA			NA, > Solubility
METHYL ETHYL KETONE	50,000.00	50,000			Ceiling Value
METHYL ISOBUTYL KETONE	50,000.00	50,000			Ceiling Value
METHYL MERCURY	NA	NA			NA
METHYL TERT BUTYL ETHER	50,000.00	50,000			Ceiling Value
METHYLNAPHTHALENE, 2-	10,000.00	400	Down		Background Indoor Air
NAPHTHALENE	6,000.00	1,000	Down		Background Indoor Air
NICKEL	NA	NA			NA
N-NITROSODIMETHYLAMINE (NDMA)		10			Cancer Risk
PENTACHLOROPHENOL	NA	50,000			Ceiling Value
PERCHLORATE		NA			NA

Public Comment Draft

**MCP Table 1 - 310 CMR 40.0974(2)**

**Method 1 Groundwater Standards**

OIL OR HAZARDOUS MATERIAL	Current	Proposed	GW-2		basis
			μg/L	μg/L	
PETROLEUM HYDROCARBONS	1,000.00	5,000	Up		Lowest of EPH Fractions
Aliphatics					
C5 to C8	1,000.00	3,000	Up		Professional Judgement
C9 to C12	1,000.00	5,000	Up		Professional Judgement
C9-C18	1,000.00	5,000	Up		Professional Judgement
C19 to C36	NA	NA			NA
Aromatics					
C9 to C10	5,000.00	7,000	Up		Background Indoor Air
C11 to C22	50,000.00	50,000			Professional Judgement
PHENANTHRENE	NA	NA			NA, > Solubility
PHENOL	50,000.00	50,000			Ceiling Value
POLYCHLORINATED BIPHENYLS (PCBs)	NA	1			Threshold Risk
PYRENE	NA	NA			NA, > Solubility
RDX		300			Cancer Risk
SELENIUM	NA	NA			NA
SILVER	NA	NA			NA
STYRENE	900.00	100	Down		Cancer Risk
TCDD, 2,3,7,8- (equivalents)	NA	NA			NA, > Solubility
TETRACHLOROETHANE, 1,1,1,2-	6.00	5	Down		Water PQL
TETRACHLOROETHANE, 1,1,2,2-	20.00	9	Down		Cancer Risk
TETRACHLOROETHYLENE	3,000.00	40	Down		Background Indoor Air
THALLIUM	NA	NA			NA
TOLUENE	6,000.00	8,000	Up		Threshold Risk
TRICHLOROBENZENE, 1,2,4-	10,000.00	2,000	Down		Threshold Risk
TRICHLOROETHANE, 1,1,1-	4,000.00	4,000			Threshold Risk
TRICHLOROETHANE, 1,1,2-	20,000.00	800	Down		Background Indoor Air
TRICHLOROETHYLENE	300.00	30	Down		Background Indoor Air
TRICHLOROPHENOL, 2,4,5-	NA	50,000			Ceiling Value
TRICHLOROPHENOL 2,4,6-	40,000.00	2,000	Down		50% Odor Threshold
VANADIUM	NA	NA			NA
VINYL CHLORIDE	2.00	2			Water PQL
XYLENES (Mixed Isomers)	6,000.00	8,000	Up		Background Indoor Air
ZINC	NA	NA			NA
Summary:		Up:	11	10%	
Down:			26	23%	
No Change:			77	68%	

**MCP Table 1 - 310 CMR 40.0974(2)****Method 1 Groundwater Standards**

OIL OR HAZARDOUS MATERIAL	GW-3		
	Current µg/L	Proposed µg/L	Up? Down?
ACENAPHTHENE	5000	5000	CCC(FW)
ACENAPHTHYLENE	3000	40	Down Median PAH photox
ACETONE	50000	50000	Ceiling
ALDRIN	10	20	Up CMC(SW)/10
ANTHRACENE	3000	30	Down acute LC50/10
ANTIMONY	300	8000	Up chronic LC50
ARSENIC	400	900	Up CCC(SW)
BARIUM	30000	50000	Up Ceiling
BENZENE	7000	10000	Up acute LC50/10
BENZO(a)ANTHRACENE	3000	1000	Down acute LC50/10
BENZO(a)PYRENE	3000	500	Down acute LC50/10
BENZO(b)FLUORANTHENE	3000	400	Down acute EC50/10
BENZO(g,h,i)PERYLENE	3000	20	Down acute LC50/10
BENZO(k)FLUORANTHENE	3000	100	Down acute LC50/10
BERYLLIUM	50	200	Up chronic LOEC
BIPHENYL, 1,1-	50000	50000	Ceiling
BIS(2-CHLOROETHYL)ETHER	50000	50000	Ceiling
BIS(2-CHLOROISOPROPYL)ETHER	50000	50000	Ceiling
BIS(2-ETHYLHEXYL)PHTHALATE	30	50000	Up Ceiling
BROMODICHLOROMETHANE	50000	50000	Ceiling
BROMOFORM	50000	50000	Ceiling
BROMOMETHANE	50000	800	Down acute LC50/10
CADMIUM	10	4	Down Bckgrnd
CARBON TETRACHLORIDE	50000	5000	Down acute LC50/10
CHLORDANE	2	2	PQL
CHLOROANILINE, p-	50000	300	Down acute EC50/10
CHLOROBENZENE	500	1000	Up chronic LOEC
CHLOROFORM	10000	20000	Up chronic LOEC
CHLOROPHENOL, 2-	40000	7000	Down acute LC50/10
CHROMIUM (TOTAL)	2000	300	Down Lowest Cr value
CHROMIUM(III)	2000	600	Down CCC(FW)
CHROMIUM(VI)	100	300	Up CCC(FW)
CHRYSENE	3000	70	Down acute LC50/10
CYANIDE	10	30	Up CCC(SW)
DIBENZO(a,h)ANTHRACENE	3000	40	Down acute LC50/10
DIBROMOCHLOROMETHANE	50000	50000	Ceiling
DICHLOROBENZENE, 1,2- (o-DCB)	8000	2000	Down acute IC50/10
DICHLOROBENZENE, 1,3- (m-DCB)	8000	50000	Up Ceiling
DICHLOROBENZENE, 1,4- (p-DCB)	8000	8000	chronic LOEC
DICHLOROBENZIDINE, 3,3'-	50000	2000	Down acute LC50/10
DICHLORODIPHENYL DICHLOROETHANE	6	50	Up chronic LC50
DICHLORODIPHENYL DICHLOROETHYLENE	100	200	Up chronic LC50
DICHLORODIPHENYLTRICHLOROETHANE	0.3	1	Up CCC(SW)

**MCP Table 1 - 310 CMR 40.0974(2)****Method 1 Groundwater Standards**

OIL OR HAZARDOUS MATERIAL	GW-3			
	Current	Proposed	Up?	Down?
	µg/L	µg/L	basis	
DICHLOROETHANE, 1,1-	50000	20000	Down	chronic LOEC
DICHLOROETHANE, 1,2-	50000	20000	Down	chronic LOEC
DICHLOROETHYLENE, 1,1-	50000	30000	Down	acute LC50/10
DICHLOROETHYLENE, CIS-1,2-	50000	50000		Ceiling
DICHLOROETHYLENE, TRANS-1,2-	50000	50000		Ceiling
DICHLOROMETHANE	50000	50000		Ceiling
DICHLOROPHENOL, 2,4-	4000	2000	Down	chronic LC50
DICHLOROPROPANE, 1,2-	30000	50000	Up	Ceiling
DICHLOROPROPENE, 1,3-	2000	200	Down	acute EC50/10
DIELDRIN	0.1	0.5	Up	CCC(SW)
DIETHYL PHTHALATE	30	9000	Up	acute EC50/10
DIMETHYL PHTHALATE	30	50000	Up	Ceiling
DIMETHYLPHENOL, 2,4-	20000	50000	Up	Ceiling
DINITROPHENOL, 2,4-	2000	20000	Up	chronic LOEC
DINITROTOLUENE, 2,4-	2000	50000	Up	Ceiling
DIOXANE, 1,4-		50000		Ceiling
ENDOSULFAN	0.1	2	Up	CCC(SW)
ENDRIN	5	5		PQL
ETHYLBENZENE	4000	5000	Up	acute EC50/10
ETHYLENE DIBROMIDE (EDB)	50000	50000		Ceiling
FLUORANTHENE	200	200		acute
FLUORENE	3000	40	Down	Median PAH phototox
HEPTACHLOR	1	1		PQL
HEPTACHLOR EPOXIDE	2	2		PQL
HEXACHLOROBENZENE	40	6000	Up	chronic LOEC
HEXACHLOROBUTADIENE	90	3000	Up	chronic LOEC
HEXACHLOROCYCLOHEXANE, GAMMA	0.8	4	Up	CMC(SW)/10
HEXACHLOROETHANE	5000	50000	Up	Ceiling
HMX		50000		Ceiling
INDENO(1,2,3-cd)PYRENE	3000	100	Down	Median PAH phototox
LEAD	30	10	Down	CCC(FW)
MERCURY	1	20	Up	CCC(FW)
METHOXYCHLOR	2	10	Up	chronic LOEC
METHYL ETHYL KETONE	50000	50000		Ceiling
METHYL ISOBUTYL KETONE	50000	50000		Ceiling
METHYL MERCURY	0.1	20	Up	CCC(FW)
METHYL TERT BUTYL ETHER	50000	50000		Ceiling
METHYLNAPHTHALENE, 2-	3000	20000	Up	acute LC50/10
NAPHTHALENE	6000	20000	Up	chronic LOEC
NICKEL	80	200	Up	CCC(SW)
N-NITROSODIMETHYLAMINE (NDMA)		50000		Ceiling
PENTACHLOROPHENOL	80	200	Up	CCC(SW)
PERCHLORATE		1000		chronic LOEC

**MCP Table 1 - 310 CMR 40.0974(2)****Method 1 Groundwater Standards**

OIL OR HAZARDOUS MATERIAL	GW-3			
	Current μg/L	Proposed μg/L	Up? Down?	basis
PETROLEUM HYDROCARBONS	20000	5000	Down	Lowest EPH fraction
Aliphatics				
C5 to C8	4000	50000	Up	Ceiling
C9 to C12	20000	50000	Up	Ceiling
C9-C18	20000	50000	Up	Ceiling
C19 to C36	20000	50000	Up	Ceiling
Aromatics				
C9 to C10	4000	50000	Up	Ceiling
C11 to C22	30000	5000	Down	Mean PAH tox
PHENANTHRENE	50	9000	Up	chronic LOEC
PHENOL	30000	2000	Down	chronic LOEC
POLYCHLORINATED BIPHENYLS (PCBs)	0.3	10	Up	CCC (FW)
PYRENE	3000	20	Down	acute LC50/10
RDX		50000		Ceiling
SELENIUM	80	100	Up	CCC
SILVER	7	7		PQL
STYRENE	50000	6000	Down	acute LC50/10
TCDD, 2,3,7,8- (equivalents)	0.0001	0.04	Up	chronic LOEC
TETRACHLOROETHANE, 1,1,1,2-	50000	50000		acute LC50/10
TETRACHLOROETHANE, 1,1,2,2-	20000	50000	Up	Ceiling
TETRACHLOROETHYLENE	5000	30000	Up	chronic LOEC
THALLIUM	400	3000	Up	chronic
TOLUENE	50000	4000	Down	acute EC50/10
TRICHLOROBENZENE, 1,2,4-	500	50000	Up	Ceiling
TRICHLOROETHANE, 1,1,1-	50000	20000	Down	acute EC10/10
TRICHLOROETHANE, 1,1,2-	50000	50000		Ceiling
TRICHLOROETHYLENE	20000	5000	Down	acute LC50/10
TRICHLOROPHENOL, 2,4,5-	100	3000	Up	chronic
TRICHLOROPHENOL 2,4,6-	10000	500	Down	acute LC50/10
VANADIUM	2000	4000	Up	chronic
VINYL CHLORIDE	40000	50000	Up	Ceiling
XYLENES (Mixed Isomers)	50000	500	Down	acute EC50/10
ZINC	900	900		CCC(FW)

Summary:	Up:	51	45%
	Down:	36	32%
	No Change:	27	24%

**MCP Table 2 - 310 CMR 40.0975(6)(a)****Method 1 S-1 Soil Standards**

Oil and/or Hazardous Material	Current S-1 Soil & GW-1	Proposed S-1 Soil & GW-1	Up? Down?	basis
	µg/g (ppm)	µg/g (ppm)		
ACENAPHTHENE	20	4	Down	Leaching
ACENAPHTHYLENE	100	2	Down	Leaching
ACETONE	3	3		Leaching
ALDRIN	0.03	0.04	Up	Cancer Risk
ANTHRACENE	1000	1000		Ceiling (High)
ANTIMONY	10	20	Up	Noncancer Risk
ARSENIC	30	20	Down	Background
BARIUM	1000	1000		Ceiling (High)
BENZENE	10	2	Down	Leaching
BENZO(a)ANTHRACENE	0.7	7	Up	Cancer Risk
BENZO(a)PYRENE	0.7	2	Up	Background
BENZO(b)FLUORANTHENE	0.7	7	Up	Cancer Risk
BENZO(g,h,i)PERYLENE	1000	1000		Ceiling (High)
BENZO(k)FLUORANTHENE	7	70	Up	Cancer Risk
BERYLLIUM	0.7	0.9	Up	Cancer Risk
BIPHENYL, 1,1-	1	0.05	Down	Leaching
BIS(2-CHLOROETHYL)ETHER	0.7	0.7		PQL
BIS(2-CHLOROISOPROPYL)ETHER	0.7	0.7		Leaching
BIS(2-ETHYLHEXYL)PHTHALATE	100	200	Up	Cancer Risk
BROMODICHLOROMETHANE	0.1	0.1		Leaching
BROMOFORM	0.1	0.1		Leaching
BROMOMETHANE	10	0.1	Down	Leaching
CADMIUM	30	2	Down	Background
CARBON TETRACHLORIDE	1	10	Up	Cancer Risk
CHLORDANE	1	0.7	Down	PQL
CHLOROANILINE, p-	1	1		Leaching
CHLOROBENZENE	8	1	Down	Leaching
CHLOROFORM	0.1	0.1		Leaching
CHLOROPHENOL, 2-	0.7	0.7		Leaching
CHROMIUM (TOTAL)	1000	30	Down	Lower of CrIII and CrVI
CHROMIUM(III)	1000	1000		Ceiling (High)
CHROMIUM(VI)	200	30	Down	Background
CHRYSENE	7	700	Up	Cancer Risk
CYANIDE	100	100		Ceiling (Low)
DIBENZO(a,h)ANTHRACENE	0.7	0.7		Cancer Risk
DIBROMOCHLOROMETHANE	0.09	0.005	Down	Leaching
DICHLOROBENZENE, 1,2- (o-DCB)	100	9	Down	Leaching
DICHLOROBENZENE, 1,3- (m-DCB)	100	1	Down	Leaching
DICHLOROBENZENE, 1,4- (p-DCB)	2	0.7	Down	Leaching
DICHLOROBENZIDINE, 3,3'-	1	1		PQL
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	2	4	Up	Cancer Risk
DICHLORODIPHENYLDICHLOROETHYLENE,P,P'- (DDE)	2	3	Up	Cancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	2	3	Up	Cancer Risk

**MCP Table 2 - 310 CMR 40.0975(6)(a)****Method 1 S-1 Soil Standards**

Oil and/or Hazardous Material	Current S-1 Soil & GW-1	Proposed S-1 Soil & GW-1	Up? Down?	basis
	µg/g (ppm)	µg/g (ppm)		
DICHLOROETHANE, 1,1-	3	0.4	Down	Leaching
DICHLOROETHANE, 1,2-	0.05	0.1	Up	Leaching
DICHLOROETHYLENE, 1,1-	0.7	3	Up	Leaching
DICHLOROETHYLENE, CIS-1,2-	2	0.3	Down	Leaching
DICHLOROETHYLENE, TRANS-1,2-	4	1	Down	Leaching
DICHLOROMETHANE	0.1	0.1		Leaching
DICHLOROPHENOL, 2,4-	10	0.7	Down	Leaching
DICHLOROPROPANE, 1,2-	0.1	0.1		Leaching
DICHLOROPROPENE, 1,3-	0.01	0.02	Up	Leaching
DIELDRIN	0.03	0.05	Up	Cancer Risk
DIETHYL PHTHALATE	100	10	Down	Leaching
DIMETHYL PHTHALATE	30	30		Leaching
DIMETHYLPHENOL, 2,4-	0.7	0.7		Leaching
DINITROPHENOL, 2,4-	3	3		Leaching
DINITROTOLUENE, 2,4-	0.7	0.7		Leaching
DIOXANE, 1,4-		0.05		Leaching
ENDOSULFAN	20	0.7	Down	Leaching
ENDRIN	0.6	8	Up	Noncancer Risk
ETHYLBENZENE	80	40	Down	Leaching
ETHYLENE DIBROMIDE	0.005	0.1	Up	PQL
FLUORANTHENE	1000	1000		Ceiling (High)
FLUORENE	400	1000	Up	Ceiling (High)
HEPTACHLOR	0.1	0.2	Up	Cancer Risk
HEPTACHLOR EPOXIDE	0.06	0.09	Up	Cancer Risk
HEXACHLOROBENZENE	0.7	0.7		Cancer Risk
HEXACHLOROBUTADIENE	3	6	Up	Noncancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.1	0.003	Down	Leaching
HEXACHLOROETHANE	6	0.7	Down	Leaching
HMX		2		Leaching
INDENO(1,2,3-cd)PYRENE	0.7	7	Up	Cancer Risk
LEAD	300	300		Not Calculated
MERCURY	20	20		Noncancer Risk
METHOXYCHLOR	100	200	Up	Noncancer Risk
METHYL ETHYL KETONE	0.3	0.4	Up	Leaching
METHYL ISOBUTYL KETONE	0.5	0.4	Down	Leaching
METHYL MERCURY	2	3	Up	Noncancer Risk
METHYL TERT BUTYL ETHER	0.3	0.1	Down	Leaching
METHYLNAPHTHALENE, 2-	4	0.7	Down	Leaching
NAPHTHALENE	4	4		Leaching
NICKEL	300	20	Down	Background
N-NITROSODIMETHYLAMINE (NDMA)		0.7		PQL
PENTACHLOROPHENOL	5	3	Down	Leaching

**MCP Table 2 - 310 CMR 40.0975(6)(a)****Method 1 S-1 Soil Standards**

Oil and/or Hazardous Material	Current S-1 Soil & GW-1 µg/g (ppm)	Proposed S-1 Soil & GW-1 µg/g (ppm)	Up? Down?	basis
PERCHLORATE		0.1		Leaching
PETROLEUM HYDROCARBONS	200	1000	Up	Lowest EPH
Aliphatics				
C5 to C8	100	100		Ceiling (Low)
C9 to C12	1000	1000		Ceiling (High)
C9 to C18	1000	1000		Ceiling (High)
C19 to C36	2500	3000	Up	Ceiling (High)
Aromatics				
C9 to C10	100	100		Ceiling (Low)
C11 to C22	200	1000	Up	Ceiling (High)
PHENANTHRENE	700	20	Down	Leaching
PHENOL	60	0.9	Down	Leaching
POLYCHLORINATED BIPHENYLS (PCBs)	2	2		Not Calculated
PYRENE	700	1000	Up	Ceiling (High)
RDX		1		Leaching
SELENIUM	400	400		Noncancer Risk
SILVER	100	100		Noncancer Risk
STYRENE	2	3	Up	Leaching
TCDD, 2,3,7,8- (equivalents)	4.E-06	2.E-05	Up	Background
TETRACHLOROETHANE, 1,1,1,2-	0.4	0.1	Down	Leaching
TETRACHLOROETHANE, 1,1,2,2-	0.02	0.005	Down	Leaching
TETRACHLOROETHYLENE	0.5	1	Up	Leaching
THALLIUM	8	8		PQL
TOLUENE	90	30	Down	Leaching
TRICHLOROBENZENE, 1,2,4-	100	2	Down	Leaching
TRICHLOROETHANE, 1,1,1-	30	30		Leaching
TRICHLOROETHANE, 1,1,2-	0.3	0.1	Down	Leaching
TRICHLOROETHYLENE	0.4	0.3	Down	Leaching
TRICHLOROPHENOL, 2,4,5-	3	3		Leaching
TRICHLOROPHENOL 2,4,6-	3	0.7	Down	Leaching
VANADIUM	400	600	Up	Noncancer Risk
VINYL CHLORIDE	0.3	0.6	Up	Cancer Risk
XYLEMES (Mixed Isomers)	500	300	Down	Soil Saturation
ZINC	2500	2500		Not Calculated
		Up	36	32%
		Down	39	34%
		No Change:	39	34%

**MCP Table 2 - 310 CMR 40.0975(6)(a)****Method 1 S-1 Soil Standards**

Oil and/or Hazardous Material	Current S-1 Soil & GW-2	Proposed S-1 Soil & GW-2	Up? Down? basis
	µg/g (ppm)	µg/g (ppm)	
ACENAPHTHENE	1000	1000	Ceiling (High)
ACENAPHTHYLENE	100	1000 Up	Ceiling (High)
ACETONE	60	50 Down	Leaching
ALDRIN	0.03	0.04 Up	Cancer Risk
ANTHRACENE	1000	1000	Ceiling (High)
ANTIMONY	10	20 Up	Noncancer Risk
ARSENIC	30	20 Down	Background
BARIUM	1000	1000	Ceiling (High)
BENZENE	40	30 Down	Cancer Risk
BENZO(a)ANTHRACENE	0.7	7 Up	Cancer Risk
BENZO(a)PYRENE	0.7	2 Up	Background
BENZO(b)FLUORANTHENE	0.7	7 Up	Cancer Risk
BENZO(g,h,i)PERYLENE	1000	1000	Ceiling (High)
BENZO(k)FLUORANTHENE	7	70 Up	Cancer Risk
BERYLLIUM	0.7	0.9 Up	Cancer Risk
BIPHENYL, 1,1-	1000	4 Down	Leaching
BIS(2-CHLOROETHYL)ETHER	0.7	0.7	PQL
BIS(2-CHLOROISOPROPYL)ETHER	2	2	Leaching
BIS(2-ETHYLHEXYL)PHTHALATE	200	200	Cancer Risk
BROMODICHLOROMETHANE	20	0.1 Down	Leaching
BROMOFORM	20	1 Down	Leaching
BROMOMETHANE	3	0.1 Down	Leaching
CADMIUM	30	2 Down	Background
CARBON TETRACHLORIDE	4	5 Up	Leaching
CHLORDANE	1	0.7 Down	PQL
CHLOROANILINE, p-	100	100	Leaching
CHLOROBENZENE	80	2 Down	Leaching
CHLOROFORM	10	0.3 Down	Leaching
CHLOROPHENOL, 2-	100	5 Down	Leaching
CHROMIUM (TOTAL)	1000	30 Down	Lower of CrIII and CrVI
CHROMIUM(III)	1000	1000	Ceiling (High)
CHROMIUM(VI)	200	30 Down	Background
CHRYSENE	7	700 Up	Cancer Risk
CYANIDE	100	100	Ceiling (Low)
DIBENZO(a,h)ANTHRACENE	0.7	0.7	Cancer Risk
DIBROMOCHLOROMETHANE	10	0.03 Down	Leaching
DICHLOROBENZENE, 1,2- (o-DCB)	100	30 Down	Leaching
DICHLOROBENZENE, 1,3- (m-DCB)	100	40 Down	Leaching
DICHLOROBENZENE, 1,4- (p-DCB)	40	4 Down	Leaching
DICHLOROBENZIDINE, 3,3'-	1	1	PQL
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	2	4 Up	Cancer Risk
DICHLORODIPHENYLDICHLOROETHYLENE,P,P'- (DDE)	2	3 Up	Cancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	2	3 Up	Cancer Risk

**MCP Table 2 - 310 CMR 40.0975(6)(a)****Method 1 S-1 Soil Standards**

Oil and/or Hazardous Material	Current S-1 Soil & GW-2	Proposed S-1 Soil & GW-2	Up? Down? basis
	µg/g (ppm)	µg/g (ppm)	
DICHLOROETHANE, 1,1-	100	5 Down	Leaching
DICHLOROETHANE, 1,2-	0.2	0.1 Down	Leaching
DICHLOROETHYLENE, 1,1-	0.1	40 Up	Leaching
DICHLOROETHYLENE, CIS-1,2-	100	0.4 Down	Leaching
DICHLOROETHYLENE, TRANS-1,2-	500	1 Down	Leaching
DICHLOROMETHANE	100	30 Down	Leaching
DICHLOROPHENOL, 2,4-	40	60 Up	Noncancer Risk
DICHLOROPROPANE, 1,2-	0.2	0.1 Down	Leaching
DICHLOROPROPENE, 1,3-	0.1	0.2 Up	Leaching
DIELDRIN	0.03	0.05 Up	Cancer Risk
DIETHYL PHTHALATE	1000	200 Down	Leaching
DIMETHYL PHTHALATE	1000	50 Down	Leaching
DIMETHYLPHENOL, 2,4-	400	60 Down	Leaching
DINITROPHENOL, 2,4-	40	50 Up	Noncancer Risk
DINITROTOLUENE, 2,4-	1	2 Up	Cancer Risk
DIOXANE, 1,4-		5	Leaching
ENDOSULFAN	100	200 Up	Noncancer Risk
ENDRIN	6	8 Up	Noncancer Risk
ETHYLBENZENE	500	200 Down	Soil Saturation
ETHYLENE DIBROMIDE	0.01	0.1 Up	PQL
FLUORANTHENE	1000	1000	Ceiling (High)
FLUORENE	1000	1000	Ceiling (High)
HEPTACHLOR	0.1	0.2 Up	Cancer Risk
HEPTACHLOR EPOXIDE	0.06	0.09 Up	Cancer Risk
HEXACHLOROBENZENE	0.7	0.7	Cancer Risk
HEXACHLOROBUTADIENE	3	6 Up	Noncancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.4	0.7 Up	Cancer Risk
HEXACHLOROETHANE	6	3 Down	Leaching
HMX		1000	Ceiling (High)
INDENO(1,2,3-cd)PYRENE	0.7	7 Up	Cancer Risk
LEAD	300	300	Not Calculated
MERCURY	20	20	Noncancer Risk
METHOXYCHLOR	100	200 Up	Noncancer Risk
METHYL ETHYL KETONE	40	50 Up	Leaching
METHYL ISOBUTYL KETONE	70	50 Down	Leaching
METHYL MERCURY	2	3 Up	Noncancer Risk
METHYL TERT BUTYL ETHER	100	100	Ceiling (Low)
METHYLNAPHTHALENE, 2-	500	10 Down	Leaching
NAPHTHALENE	100	40 Down	Leaching
NICKEL	300	20 Down	Background
N-NITROSODIMETHYLAMINE (NDMA)		0.7	PQL
PENTACHLOROPHENOL	7	10 Up	Cancer Risk

**MCP Table 2 - 310 CMR 40.0975(6)(a)****Method 1 S-1 Soil Standards**

Oil and/or Hazardous Material	Current S-1 Soil & GW-2 µg/g (ppm)	Proposed S-1 Soil & GW-2 µg/g (ppm)	Up?	Down? basis
PERCHLORATE		0.9		Noncancer Risk
PETROLEUM HYDROCARBONS	800	1000	Up	Lowest EPH
Aliphatics				
C5 to C8	100	100		Ceiling (Low)
C9 to C12	1000	1000		Ceiling (High)
C9 to C18	1000	1000		Ceiling (High)
C19 to C36	2500	3000	Up	Ceiling (High)
Aromatics				
C9 to C10	100	100		Ceiling (Low)
C11 to C22	800	1000	Up	Ceiling (High)
PHENANTHRENE	1000	500	Down	Ceiling (Medium)
PHENOL	500	50	Down	Leaching
POLYCHLORINATED BIPHENYLS (PCBs)	2	2		Not Calculated
PYRENE	700	1000	Up	Ceiling (High)
RDX		1		Leaching
SELENIUM	400	400		Noncancer Risk
SILVER	100	100		Noncancer Risk
STYRENE	20	4	Down	Leaching
TCDD, 2,3,7,8- (equivalents)	4.E-06	2.E-05	Up	Background
TETRACHLOROETHANE, 1,1,1,2-	0.5	0.1	Down	Leaching
TETRACHLOROETHANE, 1,1,2,2-	0.2	0.02	Down	Leaching
TETRACHLOROETHYLENE	20	10	Down	Leaching
THALLIUM	8	8		PQL
TOLUENE	500	300	Down	Leaching
TRICHLOROBENZENE, 1,2,4-	400	70	Down	Leaching
TRICHLOROETHANE, 1,1,1-	100	500	Up	Ceiling (Medium)
TRICHLOROETHANE, 1,1,2-	2	2		Leaching
TRICHLOROETHYLENE	20	2	Down	Leaching
TRICHLOROPHENOL, 2,4,5-	1000	1000		Ceiling (High)
TRICHLOROPHENOL 2,4,6-	40	8	Down	Leaching
VANADIUM	400	600	Up	Noncancer Risk
VINYL CHLORIDE	0.3	0.6	Up	Cancer Risk
XYLEMES (Mixed Isomers)	500	300	Down	Soil Saturation
ZINC	2500	2500		Not Calculated
		Up	39	34%
		Down	44	39%
		No Change:	31	27%

**MCP Table 2 - 310 CMR 40.0975(6)(a)****Method 1 S-1 Soil Standards**

Oil and/or Hazardous Material	Current S-1 Soil & GW-3	Proposed S-1 Soil & GW-3	Up? Down?	basis
	μg/g (ppm)	μg/g (ppm)		
ACENAPHTHENE	1000	1000		Ceiling (High)
ACENAPHTHYLENE	100	20	Down	Leaching
ACETONE	60	400	Up	Leaching
ALDRIN	0.03	0.04	Up	Cancer Risk
ANTHRACENE	1000	1000		Ceiling (High)
ANTIMONY	10	20	Up	Noncancer Risk
ARSENIC	30	20	Down	Background
BARIUM	1000	1000		Ceiling (High)
BENZENE	40	30	Down	Cancer Risk
BENZO(a)ANTHRACENE	0.7	7	Up	Cancer Risk
BENZO(a)PYRENE	0.7	2	Up	Background
BENZO(b)FLUORANTHENE	0.7	7	Up	Cancer Risk
BENZO(g,h,i)PERYLENE	1000	1000		Ceiling (High)
BENZO(k)FLUORANTHENE	7	70	Up	Cancer Risk
BERYLLIUM	0.7	0.9	Up	Cancer Risk
BIPHENYL, 1,1-	100	1000	Up	Ceiling (High)
BIS(2-CHLOROETHYL)ETHER	0.7	0.7		PQL
BIS(2-CHLOROISOPROPYL)ETHER	2	3	Up	Cancer Risk
BIS(2-ETHYLHEXYL)PHTHALATE	200	200		Cancer Risk
BROMODICHLOROMETHANE	20	20		Cancer Risk
BROMOFORM	100	200	Up	Cancer Risk
BROMOMETHANE	50	30	Down	Leaching
CADMIUM	30	2	Down	Background
CARBON TETRACHLORIDE	7	10	Up	Cancer Risk
CHLORDANE	1	0.7	Down	PQL
CHLOROANILINE, p-	30	3	Down	Leaching
CHLOROBENZENE	40	100	Up	Leaching
CHLOROFORM	200	400	Up	Noncancer Risk
CHLOROPHENOL, 2-	20	100	Up	Noncancer Risk
CHROMIUM (TOTAL)	1000	30	Down	Lower of CrIII and CrVI
CHROMIUM(III)	1000	1000		Ceiling (High)
CHROMIUM(VI)	200	30	Down	Background
CHRYSENE	7	700	Up	Cancer Risk
CYANIDE	100	100		Ceiling (Low)
DIBENZO(a,h)ANTHRACENE	0.7	0.7		Cancer Risk
DIBROMOCHLOROMETHANE	10	20	Up	Cancer Risk
DICHLOROBENZENE, 1,2- (o-DCB)	100	300	Up	Leaching
DICHLOROBENZENE, 1,3- (m-DCB)	100	100		Ceiling (Low)
DICHLOROBENZENE, 1,4- (p-DCB)	40	50	Up	Cancer Risk
DICHLOROBENZIDINE, 3,3'-	1	1		PQL
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	2	4	Up	Cancer Risk
DICHLORODIPHENYLDICHLOROETHYLENE,P,P'- (DDE)	2	3	Up	Cancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	2	3	Up	Cancer Risk

**MCP Table 2 - 310 CMR 40.0975(6)(a)****Method 1 S-1 Soil Standards**

Oil and/or Hazardous Material	Current S-1 Soil & GW-3	Proposed S-1 Soil & GW-3	Up? Down?	basis
	µg/g (ppm)	µg/g (ppm)		
DICHLOROETHANE, 1,1-	100	500	Up	Ceiling (Medium)
DICHLOROETHANE, 1,2-	10	10		Cancer Risk
DICHLOROETHYLENE, 1,1-	2	500	Up	Ceiling (Medium)
DICHLOROETHYLENE, CIS-1,2-	100	100		Ceiling (Low)
DICHLOROETHYLENE, TRANS-1,2-	500	500		Ceiling (Medium)
DICHLOROMETHANE	100	200	Up	Cancer Risk
DICHLOROPHENOL, 2,4-	40	40		Leaching
DICHLOROPROPANE, 1,2-	8	10	Up	Cancer Risk
DICHLOROPROPENE, 1,3-	3	9	Up	Cancer Risk
DIELDRIN	0.03	0.05	Up	Cancer Risk
DIETHYL PHTHALATE	0.7	300	Up	Leaching
DIMETHYL PHTHALATE	0.7	600	Up	Leaching
DIMETHYLPHENOL, 2,4-	10	500	Up	Noncancer Risk
DINITROPHENOL, 2,4-	6	50	Up	Noncancer Risk
DINITROTOLUENE, 2,4-	1	2	Up	Cancer Risk
DIOXANE, 1,4-		70		Cancer Risk
ENDOSULFAN	0.05	1	Up	Leaching
ENDRIN	1	8	Up	Noncancer Risk
ETHYLBENZENE	500	200	Down	Soil Saturation
ETHYLENE DIBROMIDE	0.01	0.1	Up	PQL
FLUORANTHENE	1000	1000		Ceiling (High)
FLUORENE	1000	1000		Ceiling (High)
HEPTACHLOR	0.1	0.2	Up	Cancer Risk
HEPTACHLOR EPOXIDE	0.06	0.09	Up	Cancer Risk
HEXACHLOROBENZENE	0.7	0.7		Cancer Risk
HEXACHLOROBUTADIENE	5	6	Up	Noncancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.4	0.5	Up	Leaching
HEXACHLOROETHANE	6	9	Up	Noncancer Risk
HMX		1000		Ceiling (High)
INDENO(1,2,3-cd)PYRENE	0.7	7	Up	Cancer Risk
LEAD	300	300		Not Calculated
MERCURY	20	20		Noncancer Risk
METHOXYCHLOR	30	200	Up	Noncancer Risk
METHYL ETHYL KETONE	40	400	Up	Leaching
METHYL ISOBUTYL KETONE	70	400	Up	Leaching
METHYL MERCURY	2	3	Up	Noncancer Risk
METHYL TERT BUTYL ETHER	100	100		Ceiling (Low)
METHYLNAPHTHALENE, 2-	500	300	Down	Noncancer Risk
NAPHTHALENE	100	500	Up	Ceiling (Medium)
NICKEL	300	20	Down	Background
N-NITROSODIMETHYLAMINE (NDMA)		0.7		PQL
PENTACHLOROPHENOL	7	10	Up	Cancer Risk

**MCP Table 2 - 310 CMR 40.0975(6)(a)****Method 1 S-1 Soil Standards**

Oil and/or Hazardous Material	Current S-1 Soil & GW-3 µg/g (ppm)	Proposed S-1 Soil & GW-3 µg/g (ppm)	Up? Down?	basis
PERCHLORATE		0.9		Noncancer Risk
PETROLEUM HYDROCARBONS	800	1000	Up	Lowest EPH
Aliphatics				
C5 to C8	100	100		Ceiling (Low)
C9 to C12	1000	1000		Ceiling (High)
C9 to C18	1000	1000		Ceiling (High)
C19 to C36	2500	3000	Up	Ceiling (High)
Aromatics				
C9 to C10	100	100		Ceiling (Low)
C11 to C22	800	1000	Up	Ceiling (High)
PHENANTHRENE	100	500	Up	Ceiling (Medium)
PHENOL	500	20	Down	Leaching
POLYCHLORINATED BIPHENYLS (PCBs)	2	2		Not Calculated
PYRENE	700	1000	Up	Ceiling (High)
RDX		8		Cancer Risk
SELENIUM	400	400		Noncancer Risk
SILVER	100	100		Noncancer Risk
STYRENE	20	30	Up	Cancer Risk
TCDD, 2,3,7,8- (equivalents)	4.E-06	2.E-05	Up	Background
TETRACHLOROETHANE, 1,1,1,2-	4	7	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,2,2-	0.5	0.8	Up	Cancer Risk
TETRACHLOROETHYLENE	20	30	Up	Cancer Risk
THALLIUM	8	8		PQL
TOLUENE	500	500		Ceiling (Medium)
TRICHLOROBENZENE, 1,2,4-	400	500	Up	Noncancer Risk
TRICHLOROETHANE, 1,1,1-	100	500	Up	Ceiling (Medium)
TRICHLOROETHANE, 1,1,2-	2	4	Up	Cancer Risk
TRICHLOROETHYLENE	70	90	Up	Noncancer Risk
TRICHLOROPHENOL, 2,4,5-	2	600	Up	Leaching
TRICHLOROPHENOL 2,4,6-	40	20	Down	Leaching
VANADIUM	400	600	Up	Noncancer Risk
VINYL CHLORIDE	0.3	0.6	Up	Cancer Risk
XYLEMES (Mixed Isomers)	500	300	Down	Soil Saturation
ZINC	2500	2500		Not Calculated
		Up	65	57%
		Down	15	13%
		No Change:	34	30%

**MCP Table 3 - 310 CMR 40.0975(6)(b)****Method 1 S-2 Soil Standards**

Oil and/or Hazardous Material	Current S-2 Soil & GW-1	Proposed S-2 Soil & GW-1	Up? Down? basis
	µg/g (ppm)	µg/g (ppm)	
ACENAPHTHENE	20	4	Down Leaching
ACENAPHTHYLENE	100	2	Down Leaching
ACETONE	3	3	Leaching
ALDRIN	0.04	0.4	Up Cancer Risk
ANTHRACENE	2500	3000	Up Ceiling (High)
ANTIMONY	40	30	Down S-3 Standard
ARSENIC	30	20	Down Background
BARIUM	2500	3000	Up Ceiling (High)
BENZENE	10	2	Down Leaching
BENZO(a)ANTHRACENE	1	40	Up Cancer Risk
BENZO(a)PYRENE	0.7	4	Up Cancer Risk
BENZO(b)FLUORANTHENE	1	40	Up Cancer Risk
BENZO(g,h,i)PERYLENE	2500	3000	Up Ceiling (High)
BENZO(k)FLUORANTHENE	10	400	Up Cancer Risk
BERYLLIUM	0.8	2	Up Cancer Risk
BIPHENYL, 1,1-	1	0.05	Down Leaching
BIS(2-CHLOROETHYL)ETHER	0.7	0.7	Leaching
BIS(2-CHLOROISOPROPYL)ETHER	0.7	0.7	Leaching
BIS(2-ETHYLHEXYL)PHTHALATE	100	200	Up Soil Saturation
BROMODICHLOROMETHANE	0.1	0.1	Leaching
BROMOFORM	0.1	0.1	Leaching
BROMOMETHANE	10	0.1	Down Leaching
CADMIUM	80	30	Down S-3 Standard
CARBON TETRACHLORIDE	1	10	Up Leaching
CHLORDANE	2	30	Up Cancer Risk
CHLOROANILINE, p-	1	1	Leaching
CHLOROBENZENE	8	1	Down Leaching
CHLOROFORM	0.1	0.1	Leaching
CHLOROPHENOL, 2-	0.7	0.7	Leaching
CHROMIUM (TOTAL)	2500	200	Down Lower of Cr III and VI
CHROMIUM(III)	2500	2000	Down S-3 Standard
CHROMIUM(VI)	600	200	Down S-3 Standard
CHRYSENE	10	3000	Up Ceiling (High)
CYANIDE	100	400	Up S-3 Standard
DIBENZO(a,h)ANTHRACENE	0.7	4	Up Cancer Risk
DIBROMOCHLOROMETHANE	0.09	0.005	Down Leaching
DICHLOROBENZENE, 1,2- (o-DCB)	200	9	Down Leaching
DICHLOROBENZENE, 1,3- (m-DCB)	200	1	Down Leaching
DICHLOROBENZENE, 1,4- (p-DCB)	2	0.7	Down Leaching
DICHLOROBENZIDINE, 3,3'-	1	10	Up Cancer Risk
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	3	30	Up S-3 Standard
DICHLORODIPHENYLDICHLOROETHYLENE,P,P'- (DDE)	2	20	Up Cancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	2	20	Up Cancer Risk

**MCP Table 3 - 310 CMR 40.0975(6)(b)****Method 1 S-2 Soil Standards**

Oil and/or Hazardous Material	Current S-2 Soil & GW-1	Proposed S-2 Soil & GW-1	Up? Down? basis
	µg/g (ppm)	µg/g (ppm)	
DICHLOROETHANE, 1,1-	3	0.4	Down Leaching
DICHLOROETHANE, 1,2-	0.05	0.1	Up Leaching
DICHLOROETHYLENE, 1,1-	0.7	3	Up Leaching
DICHLOROETHYLENE, CIS-1,2-	2	0.3	Down Leaching
DICHLOROETHYLENE, TRANS-1,2-	4	1	Down Leaching
DICHLOROMETHANE	0.1	0.1	Leaching
DICHLOROPHENOL, 2,4-	10	0.7	Down Leaching
DICHLOROPROPANE, 1,2-	0.1	0.1	Leaching
DICHLOROPROPENE, 1,3-	0.01	0.02	Up Leaching
DIELDRIN	0.04	0.4	Up Cancer Risk
DIETHYL PHTHALATE	100	10	Down Leaching
DIMETHYL PHTHALATE	30	30	Leaching
DIMETHYLPHENOL, 2,4-	0.7	0.7	Leaching
DINITROPHENOL, 2,4-	3	3	Leaching
DINITROTOLUENE, 2,4-	0.7	0.7	Leaching
DIOXANE, 1,4-		0.05	Leaching
ENDOSULFAN	20	0.7	Down Leaching
ENDRIN	0.6	10	Up S-3 Standard
ETHYLBENZENE	80	40	Down Leaching
ETHYLENE DIBROMIDE	0.005	0.1	Up PQL
FLUORANTHENE	2000	3000	Up Ceiling (High)
FLUORENE	400	3000	Up Ceiling (High)
HEPTACHLOR	0.2	2	Up Cancer Risk
HEPTACHLOR EPOXIDE	0.09	0.7	Up S-3 Standard
HEXACHLOROBENZENE	0.8	5	Up Cancer Risk
HEXACHLOROBUTADIENE	3	90	Up Cancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.1	0.003	Down Leaching
HEXACHLOROETHANE	10	0.7	Down Leaching
HMX		2	Leaching
INDENO(1,2,3-cd)PYRENE	1	40	Up Cancer Risk
LEAD	600	300	Down Not Calculated
MERCURY	60	30	Down S-3 Standard
METHOXYCHLOR	300	300	S-3 Standard
METHYL ETHYL KETONE	0.3	0.4	Up Leaching
METHYL ISOBUTYL KETONE	0.5	0.4	Down Leaching
METHYL MERCURY	6	5	Down S-3 Standard
METHYL TERT BUTYL ETHER	0.3	0.1	Down Leaching
METHYLNAPHTHALENE, 2-	4	0.7	Down Leaching
NAPHTHALENE	4	4	Leaching
NICKEL	700	700	S-3 Standard
N-NITROSODIMETHYLAMINE (NDMA)		0.7	PQL
PENTACHLOROPHENOL	5	3	Down Leaching

**MCP Table 3 - 310 CMR 40.0975(6)(b)****Method 1 S-2 Soil Standards**

Oil and/or Hazardous Material	Current S-2 Soil & GW-1	Proposed S-2 Soil & GW-1	Up? Down? basis	Leaching Lowest EPH Fraction
	µg/g (ppm)	µg/g (ppm)		
PERCHLORATE		0.1		
PETROLEUM HYDROCARBONS	200	3000	Up	Leaching Lowest EPH Fraction
Aliphatics				
C5 to C8	500	500	Ceiling (Low)	
C9 to C12	2500	3000	Up	Ceiling (High)
C9 to C18	2500	3000	Up	Ceiling (High)
C19 to C36	5000	5000		Ceiling (High)
Aromatics				
C9 to C10	100	300	Up	Leaching
C11 to C22	200	1000	Up	Leaching
PHENANTHRENE	700	20	Down	Leaching
PHENOL	60	0.9	Down	Leaching
POLYCHLORINATED BIPHENYLS (PCBs)	2	2		Not Calculated
PYRENE	1000	3000	Up	Ceiling (High)
RDX		1		Leaching
SELENIUM	2500	800	Down	S-3 Standard
SILVER	200	200		S-3 Standard
STYRENE	2	3	Up	Leaching
TCDD, 2,3,7,8- (equivalents)	6.E-06	5.E-05	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,1,2-	0.4	0.1	Down	Leaching
TETRACHLOROETHANE, 1,1,2,2-	0.02	0.005	Down	Leaching
TETRACHLOROETHYLENE	0.5	1	Up	Leaching
THALLIUM	30	50	Up	Noncancer Risk
TOLUENE	90	30	Down	Leaching
TRICHLOROBENZENE, 1,2,4-	100	2	Down	Leaching
TRICHLOROETHANE, 1,1,1-	30	30		Leaching
TRICHLOROETHANE, 1,1,2-	0.3	0.1	Down	Leaching
TRICHLOROETHYLENE	0.4	0.3	Down	Leaching
TRICHLOROPHENOL, 2,4,5-	3	3		Leaching
TRICHLOROPHENOL 2,4,6-	3	0.7	Down	Leaching
VANADIUM	2000	1000	Down	S-3 Standard
VINYL CHLORIDE	0.4	0.9	Up	Leaching
XYLEMES (Mixed Isomers)	800	300	Down	Soil Saturation
ZINC	2500	3000	Up	Ceiling (High)
Up		45	39%	
Down		44	39%	
No Change:		25	22%	

**MCP Table 3 - 310 CMR 40.0975(6)(b)****Method 1 S-2 Soil Standards**

Oil and/or Hazardous Material	Current S-2 Soil & GW-2	Proposed S-2 Soil & GW-2	Up? Down? basis
	µg/g (ppm)	µg/g (ppm)	
ACENAPHTHENE	2500	3000	Up Ceiling (High)
ACENAPHTHYLENE	2500	3000	Up Ceiling (High)
ACETONE	60	50	Down Leaching
ALDRIN	0.04	0.4	Up Cancer Risk
ANTHRACENE	2500	3000	Up Ceiling (High)
ANTIMONY	40	30	Down S-3 Standard
ARSENIC	30	20	Down Background
BARIUM	2500	3000	Up Ceiling (High)
BENZENE	60	200	Up Cancer Risk
BENZO(a)ANTHRACENE	1	40	Up Cancer Risk
BENZO(a)PYRENE	0.7	4	Up Cancer Risk
BENZO(b)FLUORANTHENE	1	40	Up Cancer Risk
BENZO(g,h,i)PERYLENE	2500	3000	Up Ceiling (High)
BENZO(k)FLUORANTHENE	10	400	Up Cancer Risk
BERYLLIUM	0.8	2	Up Cancer Risk
BIPHENYL, 1,1-	2500	4	Down Leaching
BIS(2-CHLOROETHYL)ETHER	0.7	0.7	Leaching
BIS(2-CHLOROISOPROPYL)ETHER	3	2	Down Leaching
BIS(2-ETHYLHEXYL)PHTHALATE	300	200	Down Soil Saturation
BROMODICHLOROMETHANE	20	0.1	Down Leaching
BROMOFORM	20	1	Down Leaching
BROMOMETHANE	3	0.1	Down Leaching
CADMIUM	80	30	Down S-3 Standard
CARBON TETRACHLORIDE	4	5	Up Leaching
CHLORDANE	2	30	Up Cancer Risk
CHLOROANILINE, p-	400	100	Down Leaching
CHLOROBENZENE	80	2	Down Leaching
CHLOROFORM	10	0.3	Down Leaching
CHLOROPHENOL, 2-	200	5	Down Leaching
CHROMIUM (TOTAL)	2500	200	Down Lower of Cr III and VI
CHROMIUM(III)	2500	2000	Down S-3 Standard
CHROMIUM(VI)	600	200	Down S-3 Standard
CHRYSENE	10	3000	Up Ceiling (High)
CYANIDE	100	400	Up S-3 Standard
DIBENZO(a,h)ANTHRACENE	0.7	4	Up Cancer Risk
DIBROMOCHLOROMETHANE	20	0.03	Down Leaching
DICHLOROBENZENE, 1,2- (o-DCB)	500	30	Down Leaching
DICHLOROBENZENE, 1,3- (m-DCB)	500	40	Down Leaching
DICHLOROBENZENE, 1,4- (p-DCB)	60	4	Down Leaching
DICHLOROBENZIDINE, 3,3'-	1	10	Up Cancer Risk
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	3	30	Up S-3 Standard
DICHLORODIPHENYLDICHLOROETHYLENE,P,P'- (DDE)	2	20	Up Cancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	2	20	Up Cancer Risk

**MCP Table 3 - 310 CMR 40.0975(6)(b)****Method 1 S-2 Soil Standards**

Oil and/or Hazardous Material	Current S-2 Soil & GW-2 µg/g (ppm)	Proposed S-2 Soil & GW-2 µg/g (ppm)	Up?	Down? basis
DICHLOROETHANE, 1,1-	400	5	Down	Leaching
DICHLOROETHANE, 1,2-	0.2	0.1	Down	Leaching
DICHLOROETHYLENE, 1,1-	0.1	40	Up	Leaching
DICHLOROETHYLENE, CIS-1,2-	500	0.4	Down	Leaching
DICHLOROETHYLENE, TRANS-1,2-	800	1	Down	Leaching
DICHLOROMETHANE	200	30	Down	Leaching
DICHLOROPHENOL, 2,4-	90	100	Up	S-3 Standard
DICHLOROPROPANE, 1,2-	0.2	0.1	Down	Leaching
DICHLOROPROPENE, 1,3-	0.1	0.2	Up	Leaching
DIELDRIN	0.04	0.4	Up	Cancer Risk
DIETHYL PHTHALATE	2500	200	Down	Leaching
DIMETHYL PHTHALATE	2500	50	Down	Leaching
DIMETHYLPHENOL, 2,4-	900	60	Down	Leaching
DINITROPHENOL, 2,4-	90	50	Down	Leaching
DINITROTOLUENE, 2,4-	2	10	Up	Cancer Risk
DIOXANE, 1,4-		5		Leaching
ENDOSULFAN	400	300	Down	S-3 Standard
ENDRIN	10	10		S-3 Standard
ETHYLBENZENE	1000	200	Down	Soil Saturation
ETHYLENE DIBROMIDE	0.02	0.1	Up	PQL
FLUORANTHENE	2000	3000	Up	Ceiling (High)
FLUORENE	2000	3000	Up	Ceiling (High)
HEPTACHLOR	0.2	2	Up	Cancer Risk
HEPTACHLOR EPOXIDE	0.09	0.7	Up	S-3 Standard
HEXACHLOROBENZENE	0.8	5	Up	Cancer Risk
HEXACHLOROBUTADIENE	3	90	Up	Cancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.6	0.9	Up	Leaching
HEXACHLOROETHANE	10	3	Down	Leaching
HMX		3000		S-3 Standard
INDENO(1,2,3-cd)PYRENE	1	40	Up	Cancer Risk
LEAD	600	300	Down	Not Calculated
MERCURY	60	30	Down	S-3 Standard
METHOXYCHLOR	300	300		S-3 Standard
METHYL ETHYL KETONE	40	50	Up	Leaching
METHYL ISOBUTYL KETONE	70	50	Down	Leaching
METHYL MERCURY	6	5	Down	S-3 Standard
METHYL TERT BUTYL ETHER	200	100	Down	Leaching
METHYLNAPHTHALENE, 2-	1000	10	Down	Leaching
NAPHTHALENE	1000	40	Down	Leaching
NICKEL	700	700		S-3 Standard
N-NITROSODIMETHYLAMINE (NDMA)		0.7		PQL
PENTACHLOROPHENOL	10	70	Up	Cancer Risk

**MCP Table 3 - 310 CMR 40.0975(6)(b)****Method 1 S-2 Soil Standards**

Oil and/or Hazardous Material	Current S-2 Soil & GW-2 µg/g (ppm)	Proposed S-2 Soil & GW-2 µg/g (ppm)	Up?	Down? basis
	5	S-3 Standard		
PERCHLORATE				
PETROLEUM HYDROCARBONS	2000	3000	Up	Lowest EPH Fraction
Aliphatics				
C5 to C8	500	500	Ceiling (Low)	
C9 to C12	2500	3000	Up	Ceiling (High)
C9 to C18	2500	3000	Up	Ceiling (High)
C19 to C36	5000	5000		Ceiling (High)
Aromatics				
C9 to C10	500	500	Ceiling (Low)	
C11 to C22	2000	3000	Up	Ceiling (High)
2500		1000	Down	Ceiling (Medium)
PHENANTHRENE				
PHENOL	80	50	Down	Leaching
POLYCHLORINATED BIPHENYLS (PCBs)	2	2		Not Calculated
PYRENE	2000	3000	Up	Ceiling (High)
RDX		1		Leaching
SELENIUM	2500	800	Down	S-3 Standard
SILVER	200	200		S-3 Standard
STYRENE	20	4	Down	Leaching
TCDD, 2,3,7,8- (equivalents)	6.E-06	5.E-05	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,1,2-	0.5	0.1	Down	Leaching
TETRACHLOROETHANE, 1,1,2,2-	0.2	0.02	Down	Leaching
TETRACHLOROETHYLENE	30	10	Down	Leaching
THALLIUM	30	50	Up	Noncancer Risk
TOLUENE	500	300	Down	Leaching
TRICHLOROBENZENE, 1,2,4-	2000	70	Down	Leaching
TRICHLOROETHANE, 1,1,1-	500	600	Up	Leaching
TRICHLOROETHANE, 1,1,2-	3	2	Down	Leaching
TRICHLOROETHYLENE	20	2	Down	Leaching
TRICHLOROPHENOL, 2,4,5-	2500	1000	Down	Leaching
TRICHLOROPHENOL 2,4,6-	60	8	Down	Leaching
VANADIUM	2000	1000	Down	S-3 Standard
VINYL CHLORIDE	0.4	0.7	Up	Leaching
XYLEMES (Mixed Isomers)	500	300	Down	Soil Saturation
ZINC	2500	3000	Up	Ceiling (High)
Up		47	41%	
Down		56	49%	
No Change:		11	10%	

**MCP Table 3 - 310 CMR 40.0975(6)(b)****Method 1 S-2 Soil Standards**

Oil and/or Hazardous Material	Current S-2 Soil & GW-3	Proposed S-2 Soil & GW-3	Up?	Down? basis
	µg/g (ppm)	µg/g (ppm)		
ACENAPHTHENE	2500	3000	Up	Ceiling (High)
ACENAPHTHYLENE	1000	20	Down	Leaching
ACETONE	60	400	Up	Leaching
ALDRIN	0.04	0.4	Up	Cancer Risk
ANTHRACENE	2500	3000	Up	Ceiling (High)
ANTIMONY	40	30	Down	S-3 Standard
ARSENIC	30	20	Down	Background
BARIUM	2500	3000	Up	Ceiling (High)
BENZENE	60	200	Up	Cancer Risk
BENZO(a)ANTHRACENE	1	40	Up	Cancer Risk
BENZO(a)PYRENE	0.7	4	Up	Cancer Risk
BENZO(b)FLUORANTHENE	1	40	Up	Cancer Risk
BENZO(g,h,i)PERYLENE	2500	3000	Up	Ceiling (High)
BENZO(k)FLUORANTHENE	10	400	Up	Cancer Risk
BERYLLIUM	0.8	2	Up	Cancer Risk
BIPHENYL, 1,1-	100	3000	Up	Ceiling (High)
BIS(2-CHLOROETHYL)ETHER	0.7	3	Up	Cancer Risk
BIS(2-CHLOROISOPROPYL)ETHER	3	50	Up	Cancer Risk
BIS(2-ETHYLHEXYL)PHTHALATE	300	200	Down	Soil Saturation
BROMODICHLOROMETHANE	20	100	Up	Cancer Risk
BROMOFORM	200	800	Up	Leaching
BROMOMETHANE	200	30	Down	Leaching
CADMIUM	80	30	Down	S-3 Standard
CARBON TETRACHLORIDE	10	60	Up	Cancer Risk
CHLORDANE	2	30	Up	Cancer Risk
CHLOROANILINE, p-	3	3		Leaching
CHLOROBENZENE	40	100	Up	Leaching
CHLOROFORM	200	800	Up	S-3 Standard
CHLOROPHENOL, 2-	20	300	Up	Leaching
CHROMIUM (TOTAL)	2500	200	Down	Lower of Cr III and VI
CHROMIUM(III)	2500	2000	Down	S-3 Standard
CHROMIUM(VI)	600	200	Down	S-3 Standard
CHRYSENE	10	3000	Up	Ceiling (High)
CYANIDE	100	400	Up	S-3 Standard
DIBENZO(a,h)ANTHRACENE	0.7	4	Up	Cancer Risk
DIBROMOCHLOROMETHANE	20	100	Up	Cancer Risk
DICHLOROBENZENE, 1,2- (o-DCB)	500	300	Down	Leaching
DICHLOROBENZENE, 1,3- (m-DCB)	500	500		Ceiling (Low)
DICHLOROBENZENE, 1,4- (p-DCB)	60	300	Up	Cancer Risk
DICHLOROBENZIDINE, 3,3'-	1	10	Up	Cancer Risk
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	3	30	Up	S-3 Standard
DICHLORODIPHENYLDICHLOROETHYLENE,P,P'- (DDE)	2	20	Up	Cancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	2	20	Up	Cancer Risk

**MCP Table 3 - 310 CMR 40.0975(6)(b)****Method 1 S-2 Soil Standards**

Oil and/or Hazardous Material	Current S-2 Soil & GW-3	Proposed S-2 Soil & GW-3	Up? Down?	basis
	μg/g (ppm)	μg/g (ppm)		
DICHLOROETHANE, 1,1-	500	1000	Up	Ceiling (Medium)
DICHLOROETHANE, 1,2-	20	90	Up	Cancer Risk
DICHLOROETHYLENE, 1,1-	2	1000	Up	Ceiling (Medium)
DICHLOROETHYLENE, CIS-1,2-	500	500		Ceiling (Low)
DICHLOROETHYLENE, TRANS-1,2-	1000	1000		Ceiling (Medium)
DICHLOROMETHANE	200	900	Up	Leaching
DICHLOROPHENOL, 2,4-	90	40	Down	Leaching
DICHLOROPROPANE, 1,2-	10	100	Up	Cancer Risk
DICHLOROPROPENE, 1,3-	5	70	Up	Cancer Risk
DIELDRIN	0.04	0.4	Up	Cancer Risk
DIETHYL PHTHALATE	0.7	300	Up	Leaching
DIMETHYL PHTHALATE	0.7	600	Up	Leaching
DIMETHYLPHENOL, 2,4-	10	1000	Up	Leaching
DINITROPHENOL, 2,4-	6	90	Up	S-3 Standard
DINITROTOLUENE, 2,4-	2	10	Up	Cancer Risk
DIOXANE, 1,4-		500		Ceiling (Low)
ENDOSULFAN	0.05	1	Up	Leaching
ENDRIN	1	10	Up	S-3 Standard
ETHYLBENZENE	500	200	Down	Soil Saturation
ETHYLENE DIBROMIDE	0.02	0.1	Up	PQL
FLUORANTHENE	1000	3000	Up	Ceiling (High)
FLUORENE	2000	3000	Up	Ceiling (High)
HEPTACHLOR	0.2	2	Up	Cancer Risk
HEPTACHLOR EPOXIDE	0.09	0.7	Up	S-3 Standard
HEXACHLOROBENZENE	0.8	5	Up	Cancer Risk
HEXACHLOROBUTADIENE	10	90	Up	Cancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.5	0.5		Leaching
HEXACHLOROETHANE	10	100	Up	S-3 Standard
HMX		1000		Leaching
INDENO(1,2,3-cd)PYRENE	1	40	Up	Cancer Risk
LEAD	600	300	Down	Not Calculated
MERCURY	60	30	Down	S-3 Standard
METHOXYCHLOR	30	300	Up	S-3 Standard
METHYL ETHYL KETONE	40	400	Up	Leaching
METHYL ISOBUTYL KETONE	70	400	Up	Leaching
METHYL MERCURY	6	5	Down	S-3 Standard
METHYL TERT BUTYL ETHER	200	500	Up	Ceiling (Low)
METHYLNAPHTHALENE, 2-	1000	500	Down	S-3 Standard
NAPHTHALENE	1000	1000		Ceiling (Medium)
NICKEL	700	700		S-3 Standard
N-NITROSODIMETHYLAMINE (NDMA)		0.7		PQL
PENTACHLOROPHENOL	10	10		Leaching

**MCP Table 3 - 310 CMR 40.0975(6)(b)****Method 1 S-2 Soil Standards**

Oil and/or Hazardous Material	Current S-2 Soil & GW-3 µg/g (ppm)	Proposed S-2 Soil & GW-3 µg/g (ppm)	Up?	Down? basis
	5	S-3 Standard		
PERCHLORATE				
PETROLEUM HYDROCARBONS	2000	3000	Up	Lowest EPH Fraction
Aliphatics				
C5 to C8	500	500	Ceiling (Low)	
C9 to C12	2500	3000	Up	Ceiling (High)
C9 to C18	2500	3000	Up	Ceiling (High)
C19 to C36	5000	5000		Ceiling (High)
Aromatics				
C9 to C10	500	500	Ceiling (Low)	
C11 to C22	2000	3000	Up	Ceiling (High)
100	1000	Up		Ceiling (Medium)
PHENANTHRENE				
PHENOL	500	20	Down	Leaching
POLYCHLORINATED BIPHENYLS (PCBs)	2	2		Not Calculated
PYRENE	2000	3000	Up	Ceiling (High)
RDX		60		Cancer Risk
SELENIUM	2500	800	Down	S-3 Standard
SILVER	200	200		S-3 Standard
STYRENE	30	200	Up	Cancer Risk
TCDD, 2,3,7,8- (equivalents)	6.E-06	5.E-05	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,1,2-	5	100	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,2,2-	0.6	10	Up	Cancer Risk
TETRACHLOROETHYLENE	30	200	Up	Cancer Risk
THALLIUM	30	50	Up	Noncancer Risk
TOLUENE	1000	500	Down	Soil Saturation
TRICHLOROBENZENE, 1,2,4-	800	900	Up	S-3 Standard
TRICHLOROETHANE, 1,1,1-	500	1000	Up	Ceiling (Medium)
TRICHLOROETHANE, 1,1,2-	3	60	Up	Cancer Risk
TRICHLOROETHYLENE	100	700	Up	Cancer Risk
TRICHLOROPHENOL, 2,4,5-	2	600	Up	Leaching
TRICHLOROPHENOL 2,4,6-	60	20	Down	Leaching
VANADIUM	2000	1000	Down	S-3 Standard
VINYL CHLORIDE	0.5	4	Up	Cancer Risk
XYLEMES (Mixed Isomers)	1000	300	Down	Soil Saturation
ZINC	2500	3000	Up	Ceiling (High)
		Up	77	68%
		Down	22	19%
		No Change:	15	13%

**MCP Table 4 - 310 CMR 40.0975(6)(c)****Method 1 S-3 Soil Standards**

Oil and/or Hazardous Material	Current S-3 Soil & GW-1	Proposed S-3 Soil & GW-1	Up? Down?	basis
	µg/g (ppm)	µg/g (ppm)		
ACENAPHTHENE	20	4	Down	Leaching
ACENAPHTHYLENE	100	2	Down	Leaching
ACETONE	3	3		Leaching
ALDRIN	0.1	1	Up	Noncancer Risk
ANTHRACENE	5000	5000		Ceiling (High)
ANTIMONY	40	30	Down	Noncancer Risk
ARSENIC	30	20	Down	Noncancer Risk
BARIUM	5000	4000	Down	Noncancer Risk
BENZENE	10	2	Down	Leaching
BENZO(a)ANTHRACENE	4	300	Up	Cancer Risk
BENZO(a)PYRENE	0.7	30	Up	Cancer Risk
BENZO(b)FLUORANTHENE	4	300	Up	Cancer Risk
BENZO(g,h,i)PERYLENE	2500	5000	Up	Ceiling (High)
BENZO(k)FLUORANTHENE	40	3000	Up	Cancer Risk
BERYLLIUM	3	20	Up	Cancer Risk
BIPHENYL, 1,1-	1	0.05	Down	Leaching
BIS(2-CHLOROETHYL)ETHER	0.7	0.7		Leaching
BIS(2-CHLOROISOPROPYL)ETHER	0.7	0.7		Leaching
BIS(2-ETHYLHEXYL)PHTHALATE	100	200	Up	Soil Saturation
BROMODICHLOROMETHANE	0.1	0.1		Leaching
BROMOFORM	0.1	0.1		Leaching
BROMOMETHANE	10	0.1	Down	Leaching
CADMIUM	80	30	Down	Noncancer Risk
CARBON TETRACHLORIDE	1	10	Up	Leaching
CHLORDANE	5	50	Up	Noncancer Risk
CHLOROANILINE, p-	1	1		Leaching
CHLOROBENZENE	8	1	Down	Leaching
CHLOROFORM	0.1	0.1		Leaching
CHLOROPHENOL, 2-	0.7	0.7		Leaching
CHROMIUM (TOTAL)	5000	200	Down	Lower CrIII, CrVI
CHROMIUM(III)	5000	2000	Down	Noncancer Risk
CHROMIUM(VI)	1000	200	Down	Noncancer Risk
CHRYSENE	40	5000	Up	Ceiling (High)
CYANIDE	400	400		Noncancer Risk
DIBENZO(a,h)ANTHRACENE	0.8	30	Up	Cancer Risk
DIBROMOCHLOROMETHANE	0.09	0.005	Down	Leaching
DICHLOROBENZENE, 1,2- (o-DCB)	200	9	Down	Leaching
DICHLOROBENZENE, 1,3- (m-DCB)	200	1	Down	Leaching
DICHLOROBENZENE, 1,4- (p-DCB)	2	0.7	Down	Leaching
DICHLOROBENZIDINE, 3,3'-	3	40	Up	Cancer Risk
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	10	30	Up	Noncancer Risk
DICHLORODIPHENYLDICHLOROETHYLENE,P,P'- (DDE)	9	30	Up	Noncancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	9	30	Up	Noncancer Risk

**MCP Table 4 - 310 CMR 40.0975(6)(c)****Method 1 S-3 Soil Standards**

Oil and/or Hazardous Material	Current S-3 Soil & GW-1	Proposed S-3 Soil & GW-1	Up? Down?	basis
	µg/g (ppm)	µg/g (ppm)		
DICHLOROETHANE, 1,1-	3	0.4	Down	Leaching
DICHLOROETHANE, 1,2-	0.05	0.1	Up	Leaching
DICHLOROETHYLENE, 1,1-	0.7	3	Up	Leaching
DICHLOROETHYLENE, CIS-1,2-	2	0.3	Down	Leaching
DICHLOROETHYLENE, TRANS-1,2-	4	1	Down	Leaching
DICHLOROMETHANE	0.1	0.1		Leaching
DICHLOROPHENOL, 2,4-	10	0.7	Down	Leaching
DICHLOROPROPANE, 1,2-	0.1	0.1		Leaching
DICHLOROPROPENE, 1,3-	0.01	0.02	Up	Leaching
DIELDRIN	0.1	2	Up	Cancer Risk
DIETHYL PHTHALATE	100	10	Down	Leaching
DIMETHYL PHTHALATE	30	30		Leaching
DIMETHYLPHENOL, 2,4-	0.7	0.7		Leaching
DINITROPHENOL, 2,4-	3	3		Leaching
DINITROTOLUENE, 2,4-	0.7	0.7		Leaching
DIOXANE, 1,4-		0.05		Leaching
ENDOSULFAN	20	0.7	Down	Leaching
ENDRIN	0.6	10	Up	Noncancer Risk
ETHYLBENZENE	80	40	Down	Leaching
ETHYLENE DIBROMIDE	0.005	0.1	Up	Leaching
FLUORANTHENE	2000	5000	Up	Ceiling (High)
FLUORENE	400	5000	Up	Ceiling (High)
HEPTACHLOR	0.7	8	Up	Cancer Risk
HEPTACHLOR EPOXIDE	0.3	0.7	Up	Noncancer Risk
HEXACHLOROBENZENE	3	30	Up	Cancer Risk
HEXACHLOROBUTADIENE	3	100	Up	Noncancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.1	0.003	Down	Leaching
HEXACHLOROETHANE	30	0.7	Down	Leaching
HMX		2		Leaching
INDENO(1,2,3-cd)PYRENE	4	300	Up	Cancer Risk
LEAD	600	300	Down	not calculated
MERCURY	60	30	Down	Noncancer Risk
METHOXYCHLOR	300	300		Noncancer Risk
METHYL ETHYL KETONE	0.3	0.4	Up	Leaching
METHYL ISOBUTYL KETONE	0.5	0.4	Down	Leaching
METHYL MERCURY	8	5	Down	Noncancer Risk
METHYL TERT BUTYL ETHER	0.3	0.1	Down	Leaching
METHYLNAPHTHALENE, 2-	4	0.7	Down	Leaching
NAPHTHALENE	4	4		Leaching
NICKEL	700	700		Noncancer Risk
N-NITROSODIMETHYLAMINE (NDMA)		0.7		Leaching
PENTACHLOROPHENOL	5	3	Down	Leaching
PERCHLORATE		0.1		Leaching

**MCP Table 4 - 310 CMR 40.0975(6)(c)****Method 1 S-3 Soil Standards**

Oil and/or Hazardous Material	Current S-3 Soil & GW-1 µg/g (ppm)	Proposed S-3 Soil & GW-1 µg/g (ppm)	Up? Down?	basis
PETROLEUM HYDROCARBONS	200	5000	Up	Lowest EPH Fraction
Aliphatics				
C5 to C8	500	500		High Volatility
C9 to C12	5000	5000		Ceiling (High)
C9 to C18	5000	5000		Ceiling (High)
C19 to C36	5000	5000		Ceiling (High)
Aromatics				
C9 to C10	100	300	Up	Leaching
C11 to C22	200	1000	Up	Leaching
PHENANTHRENE	700	20	Down	Leaching
PHENOL	60	0.9	Down	Leaching
POLYCHLORINATED BIPHENYLS (PCBs)	2	3	Up	Noncancer Risk
PYRENE	1000	5000	Up	Ceiling (High)
RDX		1		Leaching
SELENIUM	2500	800	Down	Noncancer Risk
SILVER	200	200		Noncancer Risk
STYRENE	2	3	Up	Leaching
TCDD, 2,3,7,8- (equivalents)	2.E-05	3.E-04	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,1,2-	0.4	0.1	Down	Leaching
TETRACHLOROETHANE, 1,1,2,2-	0.02	0.005	Down	Leaching
TETRACHLOROETHYLENE	0.5	1	Up	Leaching
THALLIUM	100	70	Down	Noncancer Risk
TOLUENE	90	30	Down	Leaching
TRICHLOROBENZENE, 1,2,4-	100	2	Down	Leaching
TRICHLOROETHANE, 1,1,1-	30	30		Leaching
TRICHLOROETHANE, 1,1,2-	0.3	0.1	Down	Leaching
TRICHLOROETHYLENE	0.4	0.3	Down	Leaching
TRICHLOROPHENOL, 2,4,5-	3	3		Leaching
TRICHLOROPHENOL 2,4,6-	3	0.7	Down	Leaching
VANADIUM	2000	1000	Down	Noncancer Risk
VINYL CHLORIDE	0.4	0.9	Up	Leaching
XYLENES (Mixed Isomers)	800	300	Down	Soil Saturation
ZINC	5000	5000		Ceiling (High)

  

Up	39	34%
Down	46	40%
No Change:	29	25%

**MCP Table 4 - 310 CMR 40.0975(6)(c)****Method 1 S-3 Soil Standards**

Oil and/or Hazardous Material	Current S-3 Soil & GW-2	Proposed S-3 Soil & GW-2	Up? Down?	basis
	µg/g (ppm)	µg/g (ppm)		
ACENAPHTHENE	5000	5000		Ceiling (High)
ACENAPHTHYLENE	2500	5000	Up	Ceiling (High)
ACETONE	60	50	Down	Leaching
ALDRIN	0.1	1	Up	Noncancer Risk
ANTHRACENE	5000	5000		Ceiling (High)
ANTIMONY	40	30	Down	Noncancer Risk
ARSENIC	30	20	Down	Noncancer Risk
BARIUM	5000	4000	Down	Noncancer Risk
BENZENE	100	700	Up	Leaching
BENZO(a)ANTHRACENE	4	300	Up	Cancer Risk
BENZO(a)PYRENE	0.7	30	Up	Cancer Risk
BENZO(b)FLUORANTHENE	4	300	Up	Cancer Risk
BENZO(g,h,i)PERYLENE	2500	5000	Up	Ceiling (High)
BENZO(k)FLUORANTHENE	40	3000	Up	Cancer Risk
BERYLLIUM	3	20	Up	Cancer Risk
BIPHENYL, 1,1-	3000	4	Down	Leaching
BIS(2-CHLOROETHYL)ETHER	0.7	0.7		Leaching
BIS(2-CHLOROISOPROPYL)ETHER	4	2	Down	Leaching
BIS(2-ETHYLHEXYL)PHTHALATE	1000	200	Down	Soil Saturation
BROMODICHLOROMETHANE	90	0.1	Down	Leaching
BROMOFORM	20	1	Down	Leaching
BROMOMETHANE	3	0.1	Down	Leaching
CADMIUM	80	30	Down	Noncancer Risk
CARBON TETRACHLORIDE	4	5	Up	Leaching
CHLORDANE	5	50	Up	Noncancer Risk
CHLOROANILINE, p-	400	100	Down	Leaching
CHLOROBENZENE	80	2	Down	Leaching
CHLOROFORM	10	0.3	Down	Leaching
CHLOROPHENOL, 2-	1000	5	Down	Leaching
CHROMIUM (TOTAL)	5000	200	Down	Lower CrIII, CrVI
CHROMIUM(III)	5000	2000	Down	Noncancer Risk
CHROMIUM(VI)	1000	200	Down	Noncancer Risk
CHRYSENE	40	5000	Up	Ceiling (High)
CYANIDE	400	400		Noncancer Risk
DIBENZO(a,h)ANTHRACENE	0.8	30	Up	Cancer Risk
DIBROMOCHLOROMETHANE	70	0.03	Down	Leaching
DICHLOROBENZENE, 1,2- (o-DCB)	500	30	Down	Leaching
DICHLOROBENZENE, 1,3- (m-DCB)	500	40	Down	Leaching
DICHLOROBENZENE, 1,4- (p-DCB)	200	4	Down	Leaching
DICHLOROBENZIDINE, 3,3'-	3	40	Up	Cancer Risk
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	10	30	Up	Noncancer Risk
DICHLORODIPHENYLDICHLOROETHYLENE,P,P'- (DDE)	9	30	Up	Noncancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	9	30	Up	Noncancer Risk

**MCP Table 4 - 310 CMR 40.0975(6)(c)****Method 1 S-3 Soil Standards**

Oil and/or Hazardous Material	Current S-3 Soil & GW-2	Proposed S-3 Soil & GW-2	Up? Down?	basis
	µg/g (ppm)	µg/g (ppm)		
DICHLOROETHANE, 1,1-	400	5	Down	Leaching
DICHLOROETHANE, 1,2-	0.2	0.1	Down	Leaching
DICHLOROETHYLENE, 1,1-	0.1	40	Up	Leaching
DICHLOROETHYLENE, CIS-1,2-	500	0.4	Down	Leaching
DICHLOROETHYLENE, TRANS-1,2-	2500	1	Down	Leaching
DICHLOROMETHANE	700	30	Down	Leaching
DICHLOROPHENOL, 2,4-	90	100	Up	Noncancer Risk
DICHLOROPROPANE, 1,2-	0.2	0.1	Down	Leaching
DICHLOROPROPENE, 1,3-	0.1	0.2	Up	Leaching
DIELDRIN	0.2	2	Up	Cancer Risk
DIETHYL PHTHALATE	5000	200	Down	Leaching
DIMETHYL PHTHALATE	5000	50	Down	Leaching
DIMETHYLPHENOL, 2,4-	4000	60	Down	Leaching
DINITROPHENOL, 2,4-	90	50	Down	Leaching
DINITROTOLUENE, 2,4-	7	30	Up	Leaching
DIOXANE, 1,4-		5		Leaching
ENDOSULFAN	400	300	Down	Noncancer Risk
ENDRIN	10	10		Noncancer Risk
ETHYLBENZENE	2500	200	Down	Soil Saturation
ETHYLENE DIBROMIDE	0.04	0.1	Up	Leaching
FLUORANTHENE	5000	5000		Ceiling (High)
FLUORENE	5000	5000		Ceiling (High)
HEPTACHLOR	0.7	8	Up	Cancer Risk
HEPTACHLOR EPOXIDE	0.3	0.7	Up	Noncancer Risk
HEXACHLOROBENZENE	3	30	Up	Cancer Risk
HEXACHLOROBUTADIENE	3	100	Up	Noncancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	2	0.9	Down	Leaching
HEXACHLOROETHANE	30	3	Down	Leaching
HMX		3000		Noncancer Risk
INDENO(1,2,3-cd)PYRENE	4	300	Up	Cancer Risk
LEAD	600	300	Down	not calculated
MERCURY	60	30	Down	Noncancer Risk
METHOXYCHLOR	300	300		Noncancer Risk
METHYL ETHYL KETONE	40	50	Up	Leaching
METHYL ISOBUTYL KETONE	70	50	Down	Leaching
METHYL MERCURY	8	5	Down	Noncancer Risk
METHYL TERT BUTYL ETHER	200	100	Down	Leaching
METHYLNAPHTHALENE, 2-	2000	10	Down	Leaching
NAPHTHALENE	1000	40	Down	Leaching
NICKEL	700	700		Noncancer Risk
N-NITROSODIMETHYLAMINE (NDMA)		0.7		Leaching
PENTACHLOROPHENOL	40	400	Up	Leaching
PERCHLORATE		5		Noncancer Risk

**MCP Table 4 - 310 CMR 40.0975(6)(c)****Method 1 S-3 Soil Standards**

Oil and/or Hazardous Material	Current S-3 Soil & GW-2	Proposed S-3 Soil & GW-2	Up? Down?	basis
	µg/g (ppm)	µg/g (ppm)		
PETROLEUM HYDROCARBONS	5000	5000		Lowest EPH Fraction
Aliphatics				
C5 to C8	500	500		High Volatility
C9 to C12	5000	5000		Ceiling (High)
C9 to C18	5000	5000		Ceiling (High)
C19 to C36	5000	5000		Ceiling (High)
Aromatics				
C9 to C10	500	500		High Volatility
C11 to C22	5000	5000		Ceiling (High)
PHENANTHRENE	2500	3000	Up	Ceiling (Medium)
PHENOL	800	50	Down	Leaching
POLYCHLORINATED BIPHENYLS (PCBs)	2	3	Up	Noncancer Risk
PYRENE	5000	5000		Ceiling (High)
RDX		1		Leaching
SELENIUM	2500	800	Down	Noncancer Risk
SILVER	200	200		Noncancer Risk
STYRENE	20	4	Down	Leaching
TCDD, 2,3,7,8- (equivalents)	2.E-05	3.E-04	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,1,2-	0.5	0.1	Down	Leaching
TETRACHLOROETHANE, 1,1,2,2-	0.2	0.02	Down	Leaching
TETRACHLOROETHYLENE	100	10	Down	Leaching
THALLIUM	100	70	Down	Noncancer Risk
TOLUENE	500	300	Down	Leaching
TRICHLOROBENZENE, 1,2,4-	2000	70	Down	Leaching
TRICHLOROETHANE, 1,1,1-	500	600	Up	Leaching
TRICHLOROETHANE, 1,1,2-	10	2	Down	Leaching
TRICHLOROETHYLENE	20	2	Down	Leaching
TRICHLOROPHENOL, 2,4,5-	5000	1000	Down	Leaching
TRICHLOROPHENOL 2,4,6-	200	8	Down	Leaching
VANADIUM	2000	1000	Down	Noncancer Risk
VINYL CHLORIDE	0.4	0.7	Up	Leaching
XYLENES (Mixed Isomers)	500	300	Down	Soil Saturation
ZINC	5000	5000		Ceiling (High)
Up				
Down				
No Change				
35                    31%				
58                    51%				
21                    18%				

**MCP Table 4 - 310 CMR 40.0975(6)(c)****Method 1 S-3 Soil Standards**

Oil and/or Hazardous Material	Current S-3 Soil & GW-3	Proposed S-3 Soil & GW-3	Up? Down?	basis
	µg/g (ppm)	µg/g (ppm)		
ACENAPHTHENE	4000	5000	Up	Ceiling (High)
ACENAPHTHYLENE	1000	20	Down	Leaching
ACETONE	60	400	Up	Leaching
ALDRIN	0.1	1	Up	Noncancer Risk
ANTHRACENE	5000	5000		Ceiling (High)
ANTIMONY	40	30	Down	Noncancer Risk
ARSENIC	30	20	Down	Noncancer Risk
BARIUM	5000	4000	Down	Noncancer Risk
BENZENE	200	900	Up	Soil Saturation
BENZO(a)ANTHRACENE	4	300	Up	Cancer Risk
BENZO(a)PYRENE	0.7	30	Up	Cancer Risk
BENZO(b)FLUORANTHENE	4	300	Up	Cancer Risk
BENZO(g,h,i)PERYLENE	2500	5000	Up	Ceiling (High)
BENZO(k)FLUORANTHENE	40	3000	Up	Cancer Risk
BERYLLIUM	3	20	Up	Cancer Risk
BIPHENYL, 1,1-	100	4000	Up	Noncancer Risk
BIS(2-CHLOROETHYL)ETHER	0.7	9	Up	Cancer Risk
BIS(2-CHLOROISOPROPYL)ETHER	9	100	Up	Cancer Risk
BIS(2-ETHYLHEXYL)PHTHALATE	500	200	Down	Soil Saturation
BROMODICHLOROMETHANE	90	500	Up	High Volatility
BROMOFORM	700	800	Up	Leaching
BROMOMETHANE	700	30	Down	Leaching
CADMIUM	80	30	Down	Noncancer Risk
CARBON TETRACHLORIDE	40	400	Up	Cancer Risk
CHLORDANE	5	50	Up	Noncancer Risk
CHLOROANILINE, p-	30	3	Down	Leaching
CHLOROBENZENE	40	100	Up	Leaching
CHLOROFORM	300	800	Up	Noncancer Risk
CHLOROPHENOL, 2-	20	300	Up	Leaching
CHROMIUM (TOTAL)	5000	200	Down	Lower CrIII, CrVI
CHROMIUM(III)	5000	2000	Down	Noncancer Risk
CHROMIUM(VI)	1000	200	Down	Noncancer Risk
CHRYSENE	40	5000	Up	Ceiling (High)
CYANIDE	400	400		Noncancer Risk
DIBENZO(a,h)ANTHRACENE	0.8	30	Up	Cancer Risk
DIBROMOCHLOROMETHANE	70	500	Up	High Volatility
DICHLOROBENZENE, 1,2- (o-DCB)	500	300	Down	Leaching
DICHLOROBENZENE, 1,3- (m-DCB)	500	500		High Volatility
DICHLOROBENZENE, 1,4- (p-DCB)	200	2000	Up	Cancer Risk
DICHLOROBENZIDINE, 3,3'-	3	40	Up	Cancer Risk
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	10	30	Up	Noncancer Risk
DICHLORODIPHENYLDICHLOROETHYLENE,P,P'- (DDE)	9	30	Up	Noncancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	9	30	Up	Noncancer Risk

**MCP Table 4 - 310 CMR 40.0975(6)(c)****Method 1 S-3 Soil Standards**

Oil and/or Hazardous Material	Current S-3 Soil & GW-3	Proposed S-3 Soil & GW-3	Up? Down?	basis
	µg/g (ppm)	µg/g (ppm)		
DICHLOROETHANE, 1,1-	500	1000	Up	Leaching
DICHLOROETHANE, 1,2-	60	300	Up	Leaching
DICHLOROETHYLENE, 1,1-	9	2000	Up	Soil Saturation
DICHLOROETHYLENE, CIS-1,2-	500	500		High Volatility
DICHLOROETHYLENE, TRANS-1,2-	2000	3000	Up	Soil Saturation
DICHLOROMETHANE	700	900	Up	Leaching
DICHLOROPHENOL, 2,4-	90	40	Down	Leaching
DICHLOROPROPANE, 1,2-	40	600	Up	Cancer Risk
DICHLOROPROPENE, 1,3-	20	100	Up	Leaching
DIELDRIN	0.1	2	Up	Cancer Risk
DIETHYL PHTHALATE	0.7	300	Up	Leaching
DIMETHYL PHTHALATE	0.7	600	Up	Leaching
DIMETHYLPHENOL, 2,4-	10	1000	Up	Leaching
DINITROPHENOL, 2,4-	6	90	Up	Noncancer Risk
DINITROTOLUENE, 2,4-	7	70	Up	Cancer Risk
DIOXANE, 1,4-		500		High Volatility
ENDOSULFAN	0.05	1	Up	Leaching
ENDRIN	1	10	Up	Noncancer Risk
ETHYLBENZENE	500	200	Down	Soil Saturation
ETHYLENE DIBROMIDE	0.07	0.7	Up	Cancer Risk
FLUORANTHENE	1000	5000	Up	Ceiling (High)
FLUORENE	4000	5000	Up	Ceiling (High)
HEPTACHLOR	0.7	8	Up	Cancer Risk
HEPTACHLOR EPOXIDE	0.3	0.7	Up	Noncancer Risk
HEXACHLOROBENZENE	3	30	Up	Cancer Risk
HEXACHLOROBUTADIENE	40	100	Up	Noncancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.5	0.5		Leaching
HEXACHLOROETHANE	30	100	Up	Noncancer Risk
HMX		1000		Leaching
INDENO(1,2,3-cd)PYRENE	4	300	Up	Cancer Risk
LEAD	600	300	Down	not calculated
MERCURY	60	30	Down	Noncancer Risk
METHOXYCHLOR	30	300	Up	Noncancer Risk
METHYL ETHYL KETONE	40	400	Up	Leaching
METHYL ISOBUTYL KETONE	70	400	Up	Leaching
METHYL MERCURY	8	5	Down	Noncancer Risk
METHYL TERT BUTYL ETHER	200	500	Up	High Volatility
METHYLNAPHTHALENE, 2-	1000	500	Down	Noncancer Risk
NAPHTHALENE	1000	3000	Up	Ceiling (Medium)
NICKEL	700	700		Noncancer Risk
N-NITROSODIMETHYLAMINE (NDMA)		2		Noncancer Risk
PENTACHLOROPHENOL	40	10	Down	Leaching
PERCHLORATE		5		Noncancer Risk

## Public Comment Draft

**MCP Table 4 - 310 CMR 40.0975(6)(c)****Method 1 S-3 Soil Standards**

Oil and/or Hazardous Material	Current S-3 Soil & GW-3	Proposed S-3 Soil & GW-3	Up? Down?	basis
	µg/g (ppm)	µg/g (ppm)		
PETROLEUM HYDROCARBONS	5000	5000		Lowest EPH Fraction
Aliphatics				
C5 to C8	500	500		High Volatility
C9 to C12	5000	5000		Ceiling (High)
C9 to C18	5000	5000		Ceiling (High)
C19 to C36	5000	5000		Ceiling (High)
Aromatics				
C9 to C10	500	500		High Volatility
C11 to C22	5000	5000		Ceiling (High)
PHENANTHRENE	100	3000	Up	Ceiling (Medium)
PHENOL	500	20	Down	Leaching
POLYCHLORINATED BIPHENYLS (PCBs)	2	3	Up	Noncancer Risk
PYRENE	5000	5000		Ceiling (High)
RDX		300		Cancer Risk
SELENIUM	2500	800	Down	Noncancer Risk
SILVER	200	200		Noncancer Risk
STYRENE	100	1000	Up	Cancer Risk
TCDD, 2,3,7,8- (equivalents)	2.E-05	3.E-04	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,1,2-	20	300	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,2,2-	2	40	Up	Cancer Risk
TETRACHLOROETHYLENE	100	400	Up	Soil Saturation
THALLIUM	100	70	Down	Noncancer Risk
TOLUENE	2500	500	Down	Soil Saturation
TRICHLOROBENZENE, 1,2,4-	800	900	Up	Noncancer Risk
TRICHLOROETHANE, 1,1,1-	500	1000	Up	Soil Saturation
TRICHLOROETHANE, 1,1,2-	10	200	Up	Cancer Risk
TRICHLOROETHYLENE	500	800	Up	Soil Saturation
TRICHLOROPHENOL, 2,4,5-	2	600	Up	Leaching
TRICHLOROPHENOL 2,4,6-	200	20	Down	Leaching
VANADIUM	2000	1000	Down	Noncancer Risk
VINYL CHLORIDE	2	20	Up	Cancer Risk
XYLENES (Mixed Isomers)	2500	300	Down	Soil Saturation
ZINC	5000	5000		Ceiling (High)
		Up	70	61%
		Down	26	23%
		No Change	18	16%

**MCP Table 5 - 310 CMR 40.0985(6)**  
**Method 2 - Direct Contact Soil Standards**

**S-1**

OIL OR HAZARDOUS MATERIAL	Current S-1 mg/kg	Proposed S-1 mg/kg	Up or Down?	basis
ACENAPHTHENE	1000	1000	Ceiling (High)	
ACENAPHTHYLENE	100	1000	Up	Ceiling (High)
ACETONE	500	500		Ceiling (Medium)
ALDRIN	0.03	0.04	Up	Cancer Risk
ANTHRACENE	1000	1000		Ceiling (High)
ANTIMONY	10	20	Up	Noncancer Risk
ARSENIC	30	20	Down	Background
BARIUM	1000	1000		Ceiling (High)
BENZENE	40	30	Down	Cancer Risk
BENZO(a)ANTHRACENE	0.7	7	Up	Cancer Risk
BENZO(a)PYRENE	0.7	2	Up	Background
BENZO(b)FLUORANTHENE	0.7	7	Up	Cancer Risk
BENZO(g,h,i)PERYLENE	100	1000	Up	Ceiling (High)
BENZO(k)FLUORANTHENE	7	70	Up	Cancer Risk
BERYLLIUM	0.7	0.9	Up	Cancer Risk
BIPHENYL, 1,1-	1000	1000		Ceiling (High)
BIS(2-CHLOROETHYL)ETHER	0.7	0.7		PQL
BIS(2-CHLOROISOPROPYL)ETHER	2	3	Up	Cancer Risk
BIS(2-ETHYLHEXYL)PHTHALATE	200	200		Cancer Risk
BROMODICHLOROMETHANE	20	20		Cancer Risk
BROMOFORM	100	200	Up	Cancer Risk
BROMOMETHANE	50	60	Up	Noncancer Risk
CADMIUM	30	2	Down	Background
CARBON TETRACHLORIDE	7	10	Up	Cancer Risk
CHLORDANE	1	0.7	Down	PQL
CHLOROANILINE, p-	100	200	Up	Noncancer Risk
CHLOROBENZENE	500	500		Ceiling (Medium)
CHLOROFORM	200	400	Up	Noncancer Risk
CHLOROPHENOL, 2-	100	100		Noncancer Risk
CHROMIUM (TOTAL)	1000	30	Down	Lower of CrIII and CrVI
CHROMIUM(III)	1000	1000		Ceiling (High)
CHROMIUM(VI)	200	30	Down	Background
CHRYSENE	7	700	Up	Cancer Risk
CYANIDE	100	100		Ceiling (Low)
DIBENZO(a,h)ANTHRACENE	0.7	0.7		Cancer Risk
DIBROMOCHLOROMETHANE	10	20	Up	Cancer Risk
DICHLOROBENZENE, 1,2- (o-DCB)	100	400	Up	Soil Saturation
DICHLOROBENZENE, 1,3- (m-DCB)	100	100		Ceiling (Low)
DICHLOROBENZENE, 1,4- (p-DCB)	40	50	Up	Cancer Risk
DICHLOROBENZIDINE, 3,3'-	1	1		PQL
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	2	4	Up	Cancer Risk
DICHLORODIPHENYL DICHLOROETHYLENE, P,P'- (DDE)	2	3	Up	Cancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	2	3	Up	Cancer Risk

**MCP Table 5 - 310 CMR 40.0985(6)**  
**Method 2 - Direct Contact Soil Standards**

**S-1**

OIL OR HAZARDOUS MATERIAL	Current S-1 mg/kg	Proposed S-1 mg/kg	Up or Down?	basis
DICHLOROETHANE, 1,1-	100	500	Up	Ceiling (Medium)
DICHLOROETHANE, 1,2-	10	10		Cancer Risk
DICHLOROETHYLENE, 1,1-	2	500	Up	Ceiling (Medium)
DICHLOROETHYLENE, CIS-1,2-	100	100		Ceiling (Low)
DICHLOROETHYLENE, TRANS-1,2-	500	500		Ceiling (Medium)
DICHLOROMETHANE	100	200	Up	Cancer Risk
DICHLOROPHENOL, 2,4-	40	60	Up	Noncancer Risk
DICHLOROPROPANE, 1,2-	8	10	Up	Cancer Risk
DICHLOROPROPENE, 1,3-	3	9	Up	Cancer Risk
DIELDRIN	0.03	0.05	Up	Cancer Risk
DIETHYL PHTHALATE	100	600	Up	Soil Saturation
DIMETHYL PHTHALATE	1000	1000		Ceiling (High)
DIMETHYLPHENOL, 2,4-	400	500	Up	Noncancer Risk
DINITROPHENOL, 2,4-	40	50	Up	Noncancer Risk
DINITROTOLUENE, 2,4-	1	2	Up	Cancer Risk
DIOXANE, 1,4-		70	New	Cancer Risk
ENDOSULFAN	100	200	Up	Noncancer Risk
ENDRIN	6	8	Up	Noncancer Risk
ETHYLBENZENE	500	200	Down	Soil Saturation
ETHYLENE DIBROMIDE	0.01	0.1	Up	PQL
FLUORANTHENE	1000	1000		Ceiling (High)
FLUORENE	1000	1000		Ceiling (High)
HEPTACHLOR	0.1	0.2	Up	Cancer Risk
HEPTACHLOR EPOXIDE	0.06	0.09	Up	Cancer Risk
HEXACHLOROBENZENE	0.7	0.7		Cancer Risk
HEXACHLOROBUTADIENE	5	6	Up	Noncancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.4	0.7	Up	Cancer Risk
HEXACHLOROETHANE	6	9	Up	Noncancer Risk
HMX		1000	New	Ceiling (High)
INDENO(1,2,3-cd)PYRENE	0.7	7	Up	Cancer Risk
LEAD	300	300		Not Calculated
MERCURY	20	20		Noncancer Risk
METHOXYCHLOR	100	200	Up	Noncancer Risk
METHYL ETHYL KETONE	500	500		Ceiling (Medium)
METHYL ISOBUTYL KETONE	100	500	Up	Ceiling (Medium)
METHYL MERCURY	2	3	Up	Noncancer Risk
METHYL TERT BUTYL ETHER	100	100		Ceiling (Low)
METHYLNAPHTHALENE, 2-	500	300	Down	Noncancer Risk
NAPHTHALENE	100	500	Up	Ceiling (Medium)
NICKEL	300	20	Down	Background
N-NITROSODIMETHYLAMINE (NDMA)		0.7	New	PQL
PENTACHLOROPHENOL	7	10	Up	Cancer Risk
PERCHLORATE		0.9	New	Noncancer Risk

Public Comment Draft

**MCP Table 5 - 310 CMR 40.0985(6)**  
**Method 2 - Direct Contact Soil Standards**

**S-1**

OIL OR HAZARDOUS MATERIAL	Current S-1 mg/kg	Proposed S-1 mg/kg	Up or Down?	basis
TOTAL PETROLEUM HYDROCARBONS	800	1000	Up	Lowest EPH
Aliphatics				
C5 to C8	100	100		Ceiling (Low)
C9 to C12	1000	1000		Ceiling (High)
C9-C18	1000	1000		Ceiling (High)
C19 to C36	2500	3000	Up	Ceiling (High)
Aromatics				
C9 to C10	100	100		Ceiling (Low)
C11 to C22	800	1000	Up	Ceiling (High)
PHENANTHRENE	1000	500	Down	Ceiling (Medium)
PHENOL	500	500		Ceiling (Medium)
POLYCHLORINATED BIPHENYLS (PCBs)	2	2		Not Calculated
PYRENE	700	1000	Up	Ceiling (High)
RDX		8	New	Cancer Risk
SELENIUM	400	400		Noncancer Risk
SILVER	100	100		Noncancer Risk
STYRENE	20	30	Up	Cancer Risk
TCDD, 2,3,7,8- (equivalents)	4.E-06	2.E-05	Up	Background
TETRACHLOROETHANE, 1,1,1,2-	4	7	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,2,2-	0.5	0.8	Up	Cancer Risk
TETRACHLOROETHYLENE	20	30	Up	Cancer Risk
THALLIUM	8	8		PQL
TOLUENE	500	500		Ceiling (Medium)
TRICHLOROBENZENE, 1,2,4-	400	500	Up	Noncancer Risk
TRICHLOROETHANE, 1,1,1-	100	500	Up	Ceiling (Medium)
TRICHLOROETHANE, 1,1,2-	2	4	Up	Cancer Risk
TRICHLOROETHYLENE	70	90	Up	Noncancer Risk
TRICHLOROPHENOL, 2,4,5-	1000	1000		Ceiling (High)
TRICHLOROPHENOL 2,4,6-	40	70	Up	Cancer Risk
VANADIUM	400	600	Up	Noncancer Risk
VINYL CHLORIDE	0.3	0.6	Up	Cancer Risk
XYLEMES (Mixed Isomers)	500	300	Down	Soil Saturation
ZINC	2500	2500		Not Calculated
Up		63	55%	
Down		11	10%	
No Change:		40	35%	

**MCP Table 5 - 310 CMR 40.0985(6)**  
**Method 2 - Direct Contact Soil Standards**

**S-2**

OIL OR HAZARDOUS MATERIAL	Current S-2 mg/kg	Proposed S-2 mg/kg	Up or Down?	basis
ACENAPHTHENE	2500	3000	Up	Ceiling (High)
ACENAPHTHYLENE	2500	3000	Up	Ceiling (High)
ACETONE	1000	1000		Ceiling (Medium)
ALDRIN	0.04	0.4	Up	Cancer Risk
ANTHRACENE	2500	3000	Up	Ceiling (High)
ANTIMONY	40	30	Down	S-3 Standard
ARSENIC	30	20	Down	Background
BARIUM	2500	3000	Up	Ceiling (High)
BENZENE	60	200	Up	Cancer Risk
BENZO(a)ANTHRACENE	1	40	Up	Cancer Risk
BENZO(a)PYRENE	0.7	4	Up	Cancer Risk
BENZO(b)FLUORANTHENE	1	40	Up	Cancer Risk
BENZO(g,h,i)PERYLENE	2500	3000	Up	Ceiling (High)
BENZO(k)FLUORANTHENE	10	400	Up	Cancer Risk
BERYLLIUM	0.8	2	Up	Cancer Risk
BIPHENYL, 1,1-	2500	3000	Up	Ceiling (High)
BIS(2-CHLOROETHYL)ETHER	0.7	3	Up	Cancer Risk
BIS(2-CHLOROISOPROPYL)ETHER	3	50	Up	Cancer Risk
BIS(2-ETHYLHEXYL)PHTHALATE	300	200	Down	Soil Saturation
BROMODICHLOROMETHANE	20	100	Up	Cancer Risk
BROMOFORM	200	1000	Up	Ceiling (Medium)
BROMOMETHANE	200	900	Up	Noncancer Risk
CADMIUM	80	30	Down	S-3 Standard
CARBON TETRACHLORIDE	10	60	Up	Cancer Risk
CHLORDANE	2	30	Up	Cancer Risk
CHLOROANILINE, p-	400	300	Down	S-3 Standard
CHLOROBENZENE	1000	700	Down	Soil Saturation
CHLOROFORM	200	800	Up	S-3 Standard
CHLOROPHENOL, 2-	200	2000	Up	S-3 Standard
CHROMIUM (TOTAL)	2500	200	Down	Lower of Cr III and VI
CHROMIUM(III)	2500	2000	Down	S-3 Standard
CHROMIUM(VI)	600	200	Down	S-3 Standard
CHRYSENE	10	3000	Up	Ceiling (High)
CYANIDE	100	400	Up	S-3 Standard
DIBENZO(a,h)ANTHRACENE	0.7	4	Up	Cancer Risk
DIBROMOCHLOROMETHANE	20	100	Up	Cancer Risk
DICHLOROBENZENE, 1,2- (o-DCB)	500	400	Down	Soil Saturation
DICHLOROBENZENE, 1,3- (m-DCB)	500	500		Ceiling (Low)
DICHLOROBENZENE, 1,4- (p-DCB)	60	300	Up	Cancer Risk
DICHLOROBENZIDINE, 3,3'-	1	10	Up	Cancer Risk
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	3	30	Up	S-3 Standard
DICHLORODIPHENYL DICHLOROETHYLENE, P,P'- (DDE)	2	20	Up	Cancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	2	20	Up	Cancer Risk

## Public Comment Draft

**MCP Table 5 - 310 CMR 40.0985(6)**  
**Method 2 - Direct Contact Soil Standards**
**S-2**

OIL OR HAZARDOUS MATERIAL	Current S-2 mg/kg	Proposed S-2 mg/kg	Up or Down?	basis
DICHLOROETHANE, 1,1-	500	1000	Up	Ceiling (Medium)
DICHLOROETHANE, 1,2-	20	90	Up	Cancer Risk
DICHLOROETHYLENE, 1,1-	2	1000	Up	Ceiling (Medium)
DICHLOROETHYLENE, CIS-1,2-	500	500		Ceiling (Low)
DICHLOROETHYLENE, TRANS-1,2-	1000	1000		Ceiling (Medium)
DICHLOROMETHANE	200	1000	Up	Ceiling (Medium)
DICHLOROPHENOL, 2,4-	90	100	Up	S-3 Standard
DICHLOROPROPANE, 1,2-	10	100	Up	Cancer Risk
DICHLOROPROPENE, 1,3-	5	70	Up	Cancer Risk
DIELDRIN	0.04	0.4	Up	Cancer Risk
DIETHYL PHTHALATE	2500	600	Down	Soil Saturation
DIMETHYL PHTHALATE	2500	3000	Up	Ceiling (High)
DIMETHYLPHENOL, 2,4-	900	3000	Up	Ceiling (High)
DINITROPHENOL, 2,4-	90	90		S-3 Standard
DINITROTOLUENE, 2,4-	2	10	Up	Cancer Risk
DIOXANE, 1,4-		500	New	Ceiling (Low)
ENDOSULFAN	400	300	Down	S-3 Standard
ENDRIN	10	10		S-3 Standard
ETHYLBENZENE	1000	200	Down	Soil Saturation
ETHYLENE DIBROMIDE	0.02	0.1	Up	PQL
FLUORANTHENE	2000	3000	Up	Ceiling (High)
FLUORENE	2000	3000	Up	Ceiling (High)
HEPTACHLOR	0.2	2	Up	Cancer Risk
HEPTACHLOR EPOXIDE	0.09	0.7	Up	S-3 Standard
HEXACHLOROBENZENE	0.8	5	Up	Cancer Risk
HEXACHLOROBUTADIENE	10	90	Up	Cancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.6	5	Up	Cancer Risk
HEXACHLOROETHANE	10	100	Up	S-3 Standard
HMX		3000	New	S-3 Standard
INDENO(1,2,3-cd)PYRENE	1	40	Up	Cancer Risk
LEAD	600	300	Down	Not Calculated
MERCURY	60	30	Down	S-3 Standard
METHOXYCHLOR	300	300		S-3 Standard
METHYL ETHYL KETONE	1000	1000		Ceiling (Medium)
METHYL ISOBUTYL KETONE	500	1000	Up	Ceiling (Medium)
METHYL MERCURY	6	5	Down	S-3 Standard
METHYL TERT BUTYL ETHER	500	500		Ceiling (Low)
METHYLNAPHTHALENE, 2-	1000	500	Down	S-3 Standard
NAPHTHALENE	2500	1000	Down	Ceiling (Medium)
NICKEL	700	700		S-3 Standard
N-NITROSODIMETHYLAMINE (NDMA)		0.7	New	PQL
PENTACHLOROPHENOL	10	70	Up	Cancer Risk
PERCHLORATE		5	New	S-3 Standard

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**MCP Table 5 - 310 CMR 40.0985(6)**  
**Method 2 - Direct Contact Soil Standards**

**S-2**

OIL OR HAZARDOUS MATERIAL	Current S-2 mg/kg	Proposed S-2 mg/kg	Up or Down?	basis
TOTAL PETROLEUM HYDROCARBONS	2000	3000	Up	Lowest EPH Fraction
Aliphatics				
C5 to C8	500	500		Ceiling (Low)
C9 to C12	2500	3000	Up	Ceiling (High)
C9-C18	2500	3000	Up	Ceiling (High)
C19 to C36	5000	5000		Ceiling (High)
Aromatics				
C9 to C10	500	500		Ceiling (Low)
C11 to C22	2000	3000	Up	Ceiling (High)
PHENANTHRENE	2500	1000	Down	Ceiling (Medium)
PHENOL	1000	1000		Ceiling (Medium)
POLYCHLORINATED BIPHENYLS (PCBs)	2	2		Not Calculated
PYRENE	2000	3000	Up	Ceiling (High)
RDX		60	New	Cancer Risk
SELENIUM	2500	800	Down	S-3 Standard
SILVER	200	200		S-3 Standard
STYRENE	30	200	Up	Cancer Risk
TCDD, 2,3,7,8- (equivalents)	6.E-06	5.E-05	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,1,2-	5	100	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,2,2-	0.6	10	Up	Cancer Risk
TETRACHLOROETHYLENE	30	200	Up	Cancer Risk
THALLIUM	30	50	Up	Noncancer Risk
TOLUENE	1000	500	Down	Soil Saturation
TRICHLOROBENZENE, 1,2,4-	1000	900	Down	S-3 Standard
TRICHLOROETHANE, 1,1,1-	500	1000	Up	Ceiling (Medium)
TRICHLOROETHANE, 1,1,2-	3	60	Up	Cancer Risk
TRICHLOROETHYLENE	100	700	Up	Cancer Risk
TRICHLOROPHENOL, 2,4,5-	2500	3000	Up	Ceiling (High)
TRICHLOROPHENOL 2,4,6-	60	600	Up	Cancer Risk
VANADIUM	2000	1000	Down	S-3 Standard
VINYL CHLORIDE	0.5	4	Up	Cancer Risk
XYLEMES (Mixed Isomers)	1000	300	Down	Soil Saturation
ZINC	2500	3000	Up	Ceiling (High)
Up		72	63%	
Down		24	21%	
No Change:		18	16%	

**MCP Table 5 - 310 CMR 40.0985(6)**  
**Method 2 - Direct Contact Soil Standards**

**S-3**

OIL OR HAZARDOUS MATERIAL	Current S-3 mg/kg	Proposed S-3 mg/kg	Up or Down?	basis
ACENAPHTHENE	5000	5000		Ceiling (High)
ACENAPHTHYLENE	2500	5000	Up	Ceiling (High)
ACETONE	2500	3000	Up	Ceiling (Medium)
ALDRIN	0.1	1	Up	Noncancer Risk
ANTHRACENE	5000	5000		Ceiling (High)
ANTIMONY	40	30	Down	Noncancer Risk
ARSENIC	30	20	Down	Noncancer Risk
BARIUM	5000	4000	Down	Noncancer Risk
BENZENE	200	900	Up	Soil Saturation
BENZO(a)ANTHRACENE	4	300	Up	Cancer Risk
BENZO(a)PYRENE	0.7	30	Up	Cancer Risk
BENZO(b)FLUORANTHENE	4	300	Up	Cancer Risk
BENZO(g,h,i)PERYLENE	2500	5000	Up	Ceiling (High)
BENZO(k)FLUORANTHENE	40	3000	Up	Cancer Risk
BERYLLIUM	3	20	Up	Cancer Risk
BIPHENYL, 1,1-	3000	4000	Up	Noncancer Risk
BIS(2-CHLOROETHYL)ETHER	0.7	9	Up	Cancer Risk
BIS(2-CHLOROISOPROPYL)ETHER	9	100	Up	Cancer Risk
BIS(2-ETHYLHEXYL)PHTHALATE	1000	200	Down	Soil Saturation
BROMODICHLOROMETHANE	90	500	Up	High Volatility
BROMOFORM	700	3000	Up	Soil Saturation
BROMOMETHANE	700	1000	Up	Noncancer Risk
CADMIUM	80	30	Down	Noncancer Risk
CARBON TETRACHLORIDE	40	400	Up	Cancer Risk
CHLORDANE	5	50	Up	Noncancer Risk
CHLOROANILINE, p-	400	300	Down	Noncancer Risk
CHLOROBENZENE	2500	700	Down	Soil Saturation
CHLOROFORM	500	800	Up	Noncancer Risk
CHLOROPHENOL, 2-	1000	2000	Up	Noncancer Risk
CHROMIUM (TOTAL)	5000	200	Down	Lower CrIII, CrVI
CHROMIUM(III)	1000	2000	Up	Noncancer Risk
CHROMIUM(VI)	1000	200	Down	Noncancer Risk
CHRYSENE	40	5000	Up	Ceiling (High)
CYANIDE	400	400		Noncancer Risk
DIBENZO(a,h)ANTHRACENE	0.8	30	Up	Cancer Risk
DIBROMOCHLOROMETHANE	70	500	Up	High Volatility
DICHLOROBENZENE, 1,2- (o-DCB)	500	400	Down	Soil Saturation
DICHLOROBENZENE, 1,3- (m-DCB)	500	500		High Volatility
DICHLOROBENZENE, 1,4- (p-DCB)	200	2000	Up	Cancer Risk
DICHLOROBENZIDINE, 3,3'-	3	40	Up	Cancer Risk
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	10	30	Up	Noncancer Risk
DICHLORODIPHENYL DICHLOROETHYLENE, P,P'- (DDE)	9	30	Up	Noncancer Risk
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	9	30	Up	Noncancer Risk

**MCP Table 5 - 310 CMR 40.0985(6)**  
**Method 2 - Direct Contact Soil Standards**

**S-3**

OIL OR HAZARDOUS MATERIAL	Current S-3 mg/kg	Proposed S-3 mg/kg	Up or Down?	basis
DICHLOROETHANE, 1,1-	500	2000	Up	Soil Saturation
DICHLOROETHANE, 1,2-	60	600	Up	Cancer Risk
DICHLOROETHYLENE, 1,1-	9	2000	Up	Soil Saturation
DICHLOROETHYLENE, CIS-1,2-	500	500		High Volatility
DICHLOROETHYLENE, TRANS-1,2-	2500	3000	Up	Soil Saturation
DICHLOROMETHANE	700	2000	Up	Soil Saturation
DICHLOROPHENOL, 2,4-	90	100	Up	Noncancer Risk
DICHLOROPROPANE, 1,2-	40	600	Up	Cancer Risk
DICHLOROPROPENE, 1,3-	20	400	Up	Cancer Risk
DIELDRIN	0.2	2	Up	Cancer Risk
DIETHYL PHTHALATE	5000	600	Down	Soil Saturation
DIMETHYL PHTHALATE	5000	5000		Ceiling (High)
DIMETHYLPHENOL, 2,4-	4000	5000	Up	Ceiling (High)
DINITROPHENOL, 2,4-	90	90		Noncancer Risk
DINITROTOLUENE, 2,4-	7	70	Up	Cancer Risk
DIOXANE, 1,4-		500	New	High Volatility
ENDOSULFAN	400	300	Down	Noncancer Risk
ENDRIN	10	10		Noncancer Risk
ETHYLBENZENE	2500	200	Down	Soil Saturation
ETHYLENE DIBROMIDE	0.07	0.7	Up	Cancer Risk
FLUORANTHENE	5000	5000		Ceiling (High)
FLUORENE	5000	5000		Ceiling (High)
HEPTACHLOR	0.7	8	Up	Cancer Risk
HEPTACHLOR EPOXIDE	0.3	0.7	Up	Noncancer Risk
HEXACHLOROBENZENE	3	30	Up	Cancer Risk
HEXACHLOROBUTADIENE	40	100	Up	Noncancer Risk
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	2	30	Up	Cancer Risk
HEXACHLOROETHANE	50	100	Up	Noncancer Risk
HMX		3000	New	Noncancer Risk
INDENO(1,2,3-cd)PYRENE	4	300	Up	Cancer Risk
LEAD	600	300	Down	not calculated
MERCURY	60	30	Down	Noncancer Risk
METHOXYCHLOR	300	300		Noncancer Risk
METHYL ETHYL KETONE	2500	3000	Up	Ceiling (Medium)
METHYL ISOBUTYL KETONE	1000	3000	Up	Ceiling (Medium)
METHYL MERCURY	8	5	Down	Noncancer Risk
METHYL TERT BUTYL ETHER	500	500		High Volatility
METHYLNAPHTHALENE, 2-	2000	500	Down	Noncancer Risk
NAPHTHALENE	2500	3000	Up	Ceiling (Medium)
NICKEL	700	700		Noncancer Risk
N-NITROSODIMETHYLAMINE (NDMA)		2	New	Noncancer Risk
PENTACHLOROPHENOL	40	500	Up	Cancer Risk
PERCHLORATE		5	New	Noncancer Risk

**MCP Table 5 - 310 CMR 40.0985(6)**  
**Method 2 - Direct Contact Soil Standards**

**S-3**

OIL OR HAZARDOUS MATERIAL	Current S-3 mg/kg	Proposed S-3 mg/kg	Up or Down?	basis
TOTAL PETROLEUM HYDROCARBONS	5000	5000		Lowest EPH Fraction
Aliphatics				
C5 to C8	500	500		High Volatility
C9 to C12	5000	5000		Ceiling (High)
C9-C18	5000	5000		Ceiling (High)
C19 to C36	5000	5000		Ceiling (High)
Aromatics				
C9 to C10	500	500		High Volatility
C11 to C22	5000	5000		Ceiling (High)
PHENANTHRENE	2500	3000	Up	Ceiling (Medium)
PHENOL	2500	3000	Up	Ceiling (Medium)
POLYCHLORINATED BIPHENYLS (PCBs)	2	3	Up	Noncancer Risk
PYRENE	5000	5000		Ceiling (High)
RDX		300	New	Cancer Risk
SELENIUM	2500	800	Down	Noncancer Risk
SILVER	200	200		Noncancer Risk
STYRENE	100	1000	Up	Cancer Risk
TCDD, 2,3,7,8- (equivalents)	2.E-05	3.E-04	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,1,2-	20	300	Up	Cancer Risk
TETRACHLOROETHANE, 1,1,2,2-	2	40	Up	Cancer Risk
TETRACHLOROETHYLENE	100	400	Up	Soil Saturation
THALLIUM	100	70	Down	Noncancer Risk
TOLUENE	2500	500	Down	Soil Saturation
TRICHLOROBENZENE, 1,2,4-	1000	900	Down	Noncancer Risk
TRICHLOROETHANE, 1,1,1-	500	1000	Up	Soil Saturation
TRICHLOROETHANE, 1,1,2-	10	200	Up	Cancer Risk
TRICHLOROETHYLENE	500	800	Up	Soil Saturation
TRICHLOROPHENOL, 2,4,5-	5000	5000		Ceiling (High)
TRICHLOROPHENOL 2,4,6-	200	3000	Up	Cancer Risk
VANADIUM	2000	1000	Down	Noncancer Risk
VINYL CHLORIDE	2	20	Up	Cancer Risk
XYLEMES (Mixed Isomers)	2500	300	Down	Soil Saturation
ZINC	5000	5000		Ceiling (High)
Up		65	57%	
Down		23	20%	
No Change:		26	23%	

**MCP Table 6 - 310 CMR 40.0996(7)**  
**Upper Concentration Limits in**  
**Groundwater & Soil**

Oil and/or Hazardous Material	Current UCLs in Groundwater	Proposed UCLs in Groundwater	Up or Down?	Current UCLs in Soil	Proposed UCLs in Soil	Up or Down?
	µg/L (ppb)	µg/L (ppb)		µg/g (ppm)	µg/g (ppm)	
ACENAPHTHENE	50000	50000		10000	10000	
ACENAPHTHYLENE	30000	500	Down	10000	10000	
ACETONE	100000	100000		10000	10000	
ALDRIN	100	200	Up	1	10	Up
ANTHRACENE	30000	5000	Down	10000	10000	
ANTIMONY	3000	80000	Up	400	300	Down
ARSENIC	4000	9000	Up	300	200	Down
BARIUM	100000	100000		10000	10000	
BENZENE	70000	100000	Up	2000	9000	Up
BENZO(a)ANTHRACENE	30000	10000	Down	100	3000	Up
BENZO(a)PYRENE	30000	5000	Down	100	300	Up
BENZO(b)FLUORANTHENE	30000	4000	Down	100	3000	Up
BENZO(g,h,i)PERYLENE	30000	700	Down	10000	10000	
BENZO(k)FLUORANTHENE	30000	1000	Down	400	10000	Up
BERYLLIUM	500	2000	Up	30	200	Up
BIPHENYL, 1,1-	100000	100000		10000	10000	
BIS(2-CHLOROETHYL)ETHER	100000	100000		7	90	Up
BIS(2-CHLOROISOPROPYL)ETHER	100000	100000		90	1000	Up
BIS(2-ETHYLHEXYL)PHTHALATE	100000	100000		10000	2000	Down
BROMODICHLOROMETHANE	100000	100000		900	5000	Up
BROMOFORM	100000	100000		7000	10000	Up
BROMOMETHANE	100000	8000	Down	7000	10000	Up
CADMIUM	100	50	Down	800	300	Down
CARBON TETRACHLORIDE	100000	50000	Down	400	4000	Up
CHLORDANE	20	20		50	500	Up
CHLOROANILINE, p-	100000	100000		4000	3000	Down
CHLOROBENZENE	10000	10000		10000	7000	Down
CHLOROFORM	100000	100000		5000	8000	Up
CHLOROPHENOL, 2-	100000	70000	Down	10000	10000	
CHROMIUM (TOTAL)	20000	3000	Down	10000	2000	Down
CHROMIUM(III)	20000	6000	Down	10000	10000	
CHROMIUM(VI)	1000	3000	Up	10000	2000	Down
CHRYSENE	30000	700	Down	400	10000	Up
CYANIDE	2000	2000		4000	4000	
DIBENZO(a,h)ANTHRACENE	30000	400	Down	100	300	Up
DIBROMOCHLOROMETHANE	100000	100000		700	5000	Up
DICHLOROBENZENE, 1,2- (o-DCB)	100000	20000	Down	5000	4000	Down
DICHLOROBENZENE, 1,3- (m-DCB)	100000	100000		5000	5000	
DICHLOROBENZENE, 1,4- (p-DCB)	100000	80000	Down	2000	10000	Up
DICHLOROBENZIDINE, 3,3'-	100000	20000	Down	30	400	Up
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	60	500	Up	100	300	Up
DICHLORODIPHENYL DICHLOROETHYLENE,P,P'- (DDE)	1000	2000	Up	90	300	Up
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	3	10	Up	90	300	Up

**MCP Table 6 - 310 CMR 40.0996(7)**  
**Upper Concentration Limits in**  
**Groundwater & Soil**

Oil and/or Hazardous Material	Current UCLs in Groundwater	Proposed UCLs in Groundwater	Up or Down?	Current UCLs in Soil	Proposed UCLs in Soil	Up or Down?
	µg/L (ppb)	µg/L (ppb)		µg/g (ppm)	µg/g (ppm)	
DICHLOROETHANE, 1,1-	100000	100000		5000	10000	Up
DICHLOROETHANE, 1,2-	100000	100000		600	6000	Up
DICHLOROETHYLENE, 1,1-	100000	100000		90	10000	Up
DICHLOROETHYLENE, CIS-1,2-	100000	100000		5000	5000	
DICHLOROETHYLENE, TRANS-1,2-	100000	100000		10000	10000	
DICHLOROMETHANE	100000	100000		7000	10000	Up
DICHLOROPHENOL, 2,4-	40000	100000	Up	900	1000	Up
DICHLOROPROPANE, 1,2-	100000	100000		400	6000	Up
DICHLOROPROPENE, 1,3-	20000	2000	Down	200	4000	Up
DIELDRIN	1	50	Up	2	20	Up
DIETHYL PHTHALATE	60000	100000	Up	10000	6000	Down
DIMETHYL PHTHALATE	100000	100000		10000	10000	
DIMETHYLPHENOL, 2,4-	100000	100000		10000	10000	
DINITROPHENOL, 2,4-	20000	100000	Up	900	900	
DINITROTOLUENE, 2,4-	20000	100000	Up	70	700	Up
DIOXANE, 1,4-		100000			5000	
ENDOSULFAN	400	200	Down	4000	3000	Down
ENDRIN	50	50		100	100	
ETHYLBENZENE	100000	100000		10000	2000	Down
ETHYLENE DIBROMIDE	100000	100000		0.7	7	Up
FLUORANTHENE	3000	2000	Down	10000	10000	
FLUORENE	30000	700	Down	10000	10000	
HEPTACHLOR	10	10		7	80	Up
HEPTACHLOR EPOXIDE	20	100	Up	3	7	Up
HEXACHLOROBENZENE	400	60000	Up	30	300	Up
HEXACHLOROBUTADIENE	900	30000	Up	400	1000	Up
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	8	600	Up	20	300	Up
HEXACHLOROETHANE	50000	100000	Up	500	1000	Up
HMX		100000			10000	
INDENO(1,2,3-cd)PYRENE	30000	1000	Down	100	3000	Up
LEAD	300	150	Down	6000	3000	Down
MERCURY	20	200	Up	600	300	Down
METHOXYCHLOR	400	400		3000	3000	
METHYL ETHYL KETONE	100000	100000		10000	10000	
METHYL ISOBUTYL KETONE	100000	100000		10000	10000	
METHYL MERCURY	7	200	Up	80	50	Down
METHYL TERT BUTYL ETHER	100000	100000		5000	5000	
METHYLNAPHTHALENE, 2-	100000	100000		10000	5000	Down
NAPHTHALENE	60000	100000	Up	10000	10000	
NICKEL	1000	2000	Up	7000	7000	
N-NITROSODIMETHYLAMINE (NDMA)		100000			20	
PENTACHLOROPHENOL	800	100000	Up	400	5000	Up
PERCHLORATE		10000			50	

**MCP Table 6 - 310 CMR 40.0996(7)**  
**Upper Concentration Limits in**  
**Groundwater & Soil**

Oil and/or Hazardous Material	Current UCLs in Groundwater µg/L (ppb)	Proposed UCLs in Groundwater µg/L (ppb)	Up or Down?	Current UCLs in Soil µg/g (ppm)	Proposed UCLs in Soil µg/g (ppm)	Up or Down?
PETROLEUM HYDROCARBONS	100000	50000	Down	10000	10000	
Aliphatics						
C5 to C8	100000	100000		5000	5000	
C9 to C12	100000	100000		20000	10000	Down
C9 to C18	100000	100000		20000	10000	Down
C19 to C36	10000	100000	Up	20000	10000	Down
Aromatics						
C9 to C10	100000	100000		5000	5000	
C11 to C22	100000	100000		10000	10000	
PHENANTHRENE	3000	90000	Up	10000	10000	
PHENOL	100000	100000		10000	10000	
POLYCHLORINATED BIPHENYLS (PCBs)	5	100	Up	100	100	
PYRENE	30000	800	Down	10000	10000	
RDX		100000			3000	
SELENIUM	800	1000	Up	10000	8000	Down
SILVER	400	1000	Up	2000	2000	
STYRENE	100000	60000	Down	1000	10000	Up
TCDD, 2,3,7,8- (equivalents)	1.00E-03	0.4	Up	2.00E-04	0.003	Up
TETRACHLOROETHANE, 1,1,1,2-	100000	100000		200	3000	Up
TETRACHLOROETHANE, 1,1,2,2-	100000	100000		20	400	Up
TETRACHLOROETHYLENE	50000	100000	Up	1000	4000	Up
THALLIUM	4000	30000	Up	1000	700	Down
TOLUENE	100000	80000	Down	10000	5000	Down
TRICHLOROBENZENE, 1,2,4-	100000	100000		10000	9000	Down
TRICHLOROETHANE, 1,1,1-	100000	100000		5000	10000	Up
TRICHLOROETHANE, 1,1,2-	100000	100000		100	2000	Up
TRICHLOROETHYLENE	100000	50000	Down	5000	8000	Up
TRICHLOROPHENOL, 2,4,5-	2000	100000	Up	10000	10000	
TRICHLOROPHENOL 2,4,6-	100000	20000	Down	2000	10000	Up
VANADIUM	20000	40000	Up	10000	10000	
VINYL CHLORIDE	100000	100000		20	200	Up
XYLENES (Mixed Isomers)	100000	100000		10000	3000	Down
ZINC	20000	50000	Up	10000	10000	
Up		35	31%	Up	51	45%
Down		30	26%	Down	24	21%
New:		3		New:	3	
No Change:		49	43%	No Change:	39	34%

**Subset of 310 CMR 40.1600****Reportable Concentrations in  
Groundwater and Soil**

Oil and/or Hazardous Material	Current RCGW-1	Proposed RCGW-1	Up or Down?	Current RCGW-2	Proposed RCGW-2	Up or Down?
	µg/L (ppb)	µg/L (ppb)		µg/L (ppb)	µg/L (ppb)	
ACENAPHTHENE	20	20		5000	5000	
ACENAPHTHYLENE	300	40	Down	3000	40	Down
ACETONE	3000	3000		50000	50000	
ALDRIN	0.5	0.5		0.5	0.8	Up
ANTHRACENE	2000	30	Down	3000	30	Down
ANTIMONY	6	6		300	8000	Up
ARSENIC	50	10	Down	400	900	Up
BARIUM	2000	2000		30000	50000	Up
BENZENE	5	5		2000	2000	
BENZO(a)ANTHRACENE	1	1		3000	1000	Down
BENZO(a)PYRENE	0.2	0.2		3000	500	Down
BENZO(b)FLUORANTHENE	1	1		3000	400	Down
BENZO(g,h,i)PERYLENE	300	20	Down	3000	20	Down
BENZO(k)FLUORANTHENE	1	1		3000	100	Down
BERYLLIUM	4	4		50	200	Up
BIPHENYL, 1,1-	400	0.8	Down	50000	100	Down
BIS(2-CHLOROETHYL)ETHER	30	30		100	30	Down
BIS(2-CHLOROISOPROPYL)ETHER	30	30		400	400	
BIS(2-ETHYLHEXYL)PHTHALATE	6	6		30	50000	Up
BROMODICHLOROMETHANE	5	3	Down	50000	8	Down
BROMOFORM	5	4	Down	800	700	Down
BROMOMETHANE	2	0.6	Down	2	0.6	Down
CADMIUM	5	4	Down	10	4	Down
CARBON TETRACHLORIDE	5	2	Down	20	2	Down
CHLORDANE	2	2		2	2	
CHLOROANILINE, p-	30	20	Down	50000	300	Down
CHLOROBENZENE	100	100		500	200	Down
CHLOROFORM	5	5		400	50	Down
CHLOROPHENOL, 2-	10	10		40000	900	Down
CHROMIUM (TOTAL)	100	100		2000	300	Down
CHROMIUM(III)	100	100		2000	600	Down
CHROMIUM(VI)	50	100	Up	100	300	Up
CHRYSENE	2	2		3000	70	Down
CYANIDE	10	30	Up	10	30	Up
DIBENZO(a,h)ANTHRACENE	0.5	0.5		3000	40	Down
DIBROMOCHLOROMETHANE	5	2	Down	50000	20	Down
DICHLOROBENZENE, 1,2- (o-DCB)	600	600		8000	2000	Down
DICHLOROBENZENE, 1,3- (m-DCB)	600	40	Down	8000	2000	Down
DICHLOROBENZENE, 1,4- (p-DCB)	5	5		8000	200	Down
DICHLOROBENZIDINE, 3,3'-	80	80		50000	2000	Down
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	0.1	0.2	Up	6	50	Up
DICHLORODIPHENYL DICHLOROETHYLENE, P,P'- (DDE)	0.1	0.1		100	200	Up
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	0.3	0.3		0.3	1	Up

**Subset of 310 CMR 40.1600****Reportable Concentrations in  
Groundwater and Soil**

Oil and/or Hazardous Material	Current RCGW-1	Proposed RCGW-1	Up or Down?	Current RCGW-2	Proposed RCGW-2	Up or Down?
	µg/L (ppb)	µg/L (ppb)		µg/L (ppb)	µg/L (ppb)	
DICHLOROETHANE, 1,1-	70	70		9000	1000	Down
DICHLOROETHANE, 1,2-	5	5		20	6	Down
DICHLOROETHYLENE, 1,1-	1	7	Up	1	80	Up
DICHLOROETHYLENE, CIS-1,2-	70	70		30000	100	Down
DICHLOROETHYLENE, TRANS-1,2-	100	90	Down	20000	90	Down
DICHLOROMETHANE	5	5		50000	10000	Down
DICHLOROPHENOL, 2,4-	10	10		4000	2000	Down
DICHLOROPROPANE, 1,2-	5	3	Down	9	3	Down
DICHLOROPROPENE, 1,3-	0.5	0.5		5	5	
DIELDRIN	0.1	0.1		0.1	0.5	Up
DIETHYL PHTHALATE	30	2000	Up	30	9000	Up
DIMETHYL PHTHALATE	30	30000	Up	30	50000	Up
DIMETHYLPHENOL, 2,4-	100	60	Down	20000	20000	
DINITROPHENOL, 2,4-	200	200		2000	20000	Up
DINITROTOLUENE, 2,4-	30	30		2000	10000	Up
DIOXANE, 1,4-		50			5000	
ENDOSULFAN	0.1	2	Up	0.1	2	Up
ENDRIN	2	2		5	5	
ETHYLBENZENE	700	700		4000	5000	Up
ETHYLENE DIBROMIDE	0.02	0.02		3	2	Down
FLUORANTHENE	200	90	Down	200	200	
FLUORENE	300	40	Down	3000	40	Down
HEPTACHLOR	0.4	0.4		1	1	
HEPTACHLOR EPOXIDE	0.2	0.2		2	2	
HEXACHLOROBENZENE	1	1		40	1	Down
HEXACHLOROBUTADIENE	0.6	0.6		0.6	1	Up
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.2	0.2		0.8	4	Up
HEXACHLOROETHANE	8	8		10	100	Up
HMX		200			50000	
INDENO(1,2,3-cd)PYRENE	0.5	0.5		3000	100	Down
LEAD	20	10	Down	30	10	Down
MERCURY	1	2	Up	1	20	Up
METHOXYCHLOR	2	10	Up	2	10	Up
METHYL ETHYL KETONE	400	350	Down	50000	50000	
METHYL ISOBUTYL KETONE	400	350	Down	50000	50000	
METHYL MERCURY	0.1	0.3	Up	0.1	20	Up
METHYL TERT BUTYL ETHER	70	70		50000	1000	Down
METHYLNAPHTHALENE, 2-	10	10		3000	400	Down
NAPHTHALENE	20	140	Up	6000	1000	Down
NICKEL	80	100	Up	80	200	Up
N-NITROSODIMETHYLAMINE (NDMA)	500	0.01	Down	5000	10	Down
PENTACHLOROPHENOL	1	1		80	200	Up
PERCHLORATE		1			1000	

**Subset of 310 CMR 40.1600****Reportable Concentrations in  
Groundwater and Soil**

Oil and/or Hazardous Material	Current RCGW-1	Proposed RCGW-1	Up or Down?	Current RCGW-2	Proposed RCGW-2	Up or Down?
	µg/L (ppb)	µg/L (ppb)		µg/L (ppb)	µg/L (ppb)	
PETROLEUM HYDROCARBONS	200	200		1000	5000	Up
Aliphatics						
C5 to C8	400	400		1000	3000	Up
C9 to C12	1000	4000	Up	1000	5000	Up
C9 to C18	1000	4000	Up	1000	5000	Up
C19 to C36	5000	5000		20000	50000	Up
Aromatics						
C9 to C10	200	200		4000	7000	Up
C11 to C22	200	200		30000	5000	Down
PHENANTHRENE	50	80	Up	50	9000	Up
PHENOL	4000	900	Down	30000	2000	Down
POLYCHLORINATED BIPHENYLS (PCBs)	0.3	0.5	Up	0.3	1	Up
PYRENE	200	20	Down	3000	20	Down
RDX	1000	0.8	Down	10000	300	Down
SELENIUM	50	50		80	100	Up
SILVER	7	7		7	7	
STYRENE	100	100		900	100	Down
TCDD, 2,3,7,8- (equivalents)	0.00003	0.00003		0.0001	0.04	Up
TETRACHLOROETHANE, 1,1,1,2-	5	5		6	5	Down
TETRACHLOROETHANE, 1,1,2,2-	2	2		20	9	Down
TETRACHLOROETHYLENE	5	5		3000	40	Down
THALLIUM	2	2		400	3000	Up
TOLUENE	1000	1000		6000	4000	Down
TRICHLOROBENZENE, 1,2,4-	70	70		500	2000	Up
TRICHLOROETHANE, 1,1,1-	200	200		4000	4000	
TRICHLOROETHANE, 1,1,2-	5	5		20000	800	Down
TRICHLOROETHYLENE	5	5		300	30	Down
TRICHLOROPHENOL, 2,4,5-	100	200	Up	100	3000	Up
TRICHLOROPHENOL 2,4,6-	10	10		10000	500	Down
VANADIUM	50	30	Down	2000	4000	Up
VINYL CHLORIDE	2	2		2	2	
XYLENES (Mixed Isomers)	6000	500	Down	6000	500	Down
ZINC	900	900		900	900	

Up	17	15%	Up	41	36%
Down	27	24%	Down	56	49%
New:	3		New:	3	
No Change:	70	61%	No Change	17	15%

Reportable Quantity	Current DEP RQ	Proposed DEP RQ	Reportable Concentrations
	(in gallons)	(in gallons)	
Mineral Oil Dielectric Fluid (MODF)	10 (as mineral oil)	25	(See TPH RC and RCs of other relevant constituents)
HMX		10	(in pounds)

**Subset of 310 CMR 40.1600**  
**Reportable Concentrations in**  
**Groundwater and Soil**

Oil and/or Hazardous Material	Current RCS-1 µg/g (ppm)	Proposed RCS-1 µg/g (ppm)	Up or Down?	Current RCS-2 µg/g (ppm)	Proposed RCS-2 µg/g (ppm)	Up or Down?
ACENAPHTHENE	20	4	Down	2500	3000	Up
ACENAPHTHYLENE	100	2	Down	1000	20	Down
ACETONE	3	3		60	50	Down
ALDRIN	0.03	0.04	Up	0.04	0.4	Up
ANTHRACENE	1000	1000		2500	3000	Up
ANTIMONY	10	20	Up	40	30	Down
ARSENIC	30	20	Down	30	20	Down
BARIUM	1000	1000		2500	3000	Up
BENZENE	10	2	Down	60	200	Up
BENZO(a)ANTHRACENE	0.7	7	Up	1	40	Up
BENZO(a)PYRENE	0.7	2	Up	0.7	4	Up
BENZO(b)FLUORANTHENE	0.7	7	Up	1	40	Up
BENZO(g,h,i)PERYLENE	1000	1000		2500	3000	Up
BENZO(k)FLUORANTHENE	7	70	Up	10	400	Up
BERYLLIUM	0.7	0.9	Up	0.8	2	Up
BIPHENYL, 1,1-	1	0.05	Down	100	4	Down
BIS(2-CHLOROETHYL)ETHER	0.7	0.7		0.7	0.7	
BIS(2-CHLOROISOPROPYL)ETHER	0.7	0.7		3	2	Down
BIS(2-ETHYLHEXYL)PHTHALATE	100	200	Up	300	200	Down
BROMODICHLOROMETHANE	0.1	0.1		20	0.1	Down
BROMOFORM	0.1	0.1		20	1	Down
BROMOMETHANE	3	0.1	Down	3	0.1	Down
CADMIUM	30	2	Down	80	30	Down
CARBON TETRACHLORIDE	1	5	Up	4	5	Up
CHLORDANE	1	0.7	Down	2	30	Up
CHLOROANILINE, p-	1	1		30	3	Down
CHLOROBENZENE	8	1	Down	40	2	Down
CHLOROFORM	0.1	0.1		10	0.3	Down
CHLOROPHENOL, 2-	0.7	0.7		20	5	Down
CHROMIUM (TOTAL)	1000	30	Down	2500	200	Down
CHROMIUM(III)	1000	1000		2500	2000	Down
CHROMIUM(VI)	200	30	Down	600	200	Down
CHRYSENE	7	700	Up	10	3000	Up
CYANIDE	100	100		100	400	Up
DIBENZO(a,h)ANTHRACENE	0.7	0.7		0.7	4	Up
DIBROMOCHLOROMETHANE	0.09	0.005	Down	20	0.03	Down
DICHLOROBENZENE, 1,2- (o-DCB)	100	9	Down	500	30	Down
DICHLOROBENZENE, 1,3- (m-DCB)	100	1	Down	500	40	Down
DICHLOROBENZENE, 1,4- (p-DCB)	2	0.7	Down	60	4	Down
DICHLOROBENZIDINE, 3,3'-	1	1		1	10	Up
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	2	4	Up	3	30	Up
DICHLORODIPHENYL DICHLOROETHYLENE, P,P'- (DDE)	2	3	Up	2	20	Up
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	2	3	Up	2	20	Up

**Subset of 310 CMR 40.1600**  
**Reportable Concentrations in**  
**Groundwater and Soil**

Oil and/or Hazardous Material	Current RCS-1 µg/g (ppm)	Proposed RCS-1 µg/g (ppm)	Up or Down?	Current RCS-2 µg/g (ppm)	Proposed RCS-2 µg/g (ppm)	Up or Down?
DICHLOROETHANE, 1,1-	3	0.4	Down	400	5	Down
DICHLOROETHANE, 1,2-	0.05	0.1	Up	0.2	0.1	Down
DICHLOROETHYLENE, 1,1-	0.1	3	Up	0.1	40	Up
DICHLOROETHYLENE, CIS-1,2-	2	0.3	Down	500	0.4	Down
DICHLOROETHYLENE, TRANS-1,2-	4	1	Down	500	1	Down
DICHLOROMETHANE	0.1	0.1		200	30	Down
DICHLOROPHENOL, 2,4-	10	0.7	Down	90	40	Down
DICHLOROPROPANE, 1,2-	0.1	0.1		0.2	0.1	Down
DICHLOROPROPENE, 1,3-	0.01	0.02	Up	0.1	0.2	Up
DIELDRIN	0.03	0.05	Up	0.04	0.4	Up
DIETHYL PHTHALATE	0.7	10	Up	0.7	200	Up
DIMETHYL PHTHALATE	0.7	30	Up	0.7	50	Up
DIMETHYLPHENOL, 2,4-	0.7	0.7		10	60	Up
DINITROPHENOL, 2,4-	3	3		6	50	Up
DINITROTOLUENE, 2,4-	0.7	0.7		2	10	Up
DIOXANE, 1,4-		0.05			5	
ENDOSULFAN	0.05	0.7	Up	0.05	1	Up
ENDRIN	0.6	8	Up	1	10	Up
ETHYLBENZENE	80	40	Down	500	200	Down
ETHYLENE DIBROMIDE	0.005	0.1	Up	0.02	0.1	Up
FLUORANTHENE	1000	1000		1000	3000	Up
FLUORENE	400	1000	Up	2000	3000	Up
HEPTACHLOR	0.1	0.2	Up	0.2	2	Up
HEPTACHLOR EPOXIDE	0.06	0.09	Up	0.09	0.7	Up
HEXACHLOROBENZENE	0.7	0.7		0.8	5	Up
HEXACHLOROBUTADIENE	3	6	Up	3	90	Up
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.1	0.003	Down	0.5	0.5	
HEXACHLOROETHANE	6	0.7	Down	10	3	Down
HMX		2			1000	
INDENO(1,2,3-cd)PYRENE	0.7	7	Up	1	40	Up
LEAD	300	300		600	300	Down
MERCURY	20	20		60	30	Down
METHOXYCHLOR	30	200	Up	30	300	Up
METHYL ETHYL KETONE	0.3	0.4	Up	40	50	Up
METHYL ISOBUTYL KETONE	0.5	0.4	Down	70	50	Down
METHYL MERCURY	2	3	Up	6	5	Down
METHYL TERT BUTYL ETHER	0.3	0.1	Down	200	100	Down
METHYLNAPHTHALENE, 2-	4	0.7	Down	1000	10	Down
NAPHTHALENE	4	4		1000	40	Down
NICKEL	300	20	Down	700	700	
N-NITROSODIMETHYLAMINE (NDMA)	50	0.7	Down	500	0.7	Down
PENTACHLOROPHENOL	5	3	Down	10	10	
PERCHLORATE		0.1			5	

**Subset of 310 CMR 40.1600**  
**Reportable Concentrations in**  
**Groundwater and Soil**

Oil and/or Hazardous Material	Current RCS-1 µg/g (ppm)	Proposed RCS-1 µg/g (ppm)	Up or Down?	Current RCS-2 µg/g (ppm)	Proposed RCS-2 µg/g (ppm)	Up or Down?
PETROLEUM HYDROCARBONS	200	1000	Up	2000	3000	Up
Aliphatics						
C5 to C8	100	100		500	500	
C9 to C12	1000	1000		2500	3000	Up
C9 to C18	1000	1000		2500	3000	Up
C19 to C36	2500	3000	Up	5000	5000	
Aromatics						
C9 to C10	100	100		500	500	
C11 to C22	200	1000	Up	2000	3000	Up
PHENANTHRENE	100	20	Down	100	1000	Up
PHENOL	60	0.9	Down	500	20	Down
POLYCHLORINATED BIPHENYLS (PCBs)	2	2		2	2	
PYRENE	700	1000	Up	2000	3000	Up
RDX	100	1	Down	1000	1	Down
SELENIUM	400	400		2500	800	Down
SILVER	100	100		200	200	
STYRENE	2	3	Up	20	4	Down
TCDD, 2,3,7,8- (equivalents)	4.E-06	2.E-05	Up	4.E-06	5.E-05	Up
TETRACHLOROETHANE, 1,1,1,2-	0.4	0.1	Down	0.5	0.1	Down
TETRACHLOROETHANE, 1,1,2,2-	0.02	0.005	Down	0.2	0.02	Down
TETRACHLOROETHYLENE	0.5	1	Up	30	10	Down
THALLIUM	8	8		30	50	Up
TOLUENE	90	30	Down	500	300	Down
TRICHLOROBENZENE, 1,2,4-	100	2	Down	500	70	Down
TRICHLOROETHANE, 1,1,1-	30	30		500	600	Up
TRICHLOROETHANE, 1,1,2-	0.3	0.1	Down	3	2	Down
TRICHLOROETHYLENE	0.4	0.3	Down	20	2	Down
TRICHLOROPHENOL, 2,4,5-	2	3	Up	2	600	Up
TRICHLOROPHENOL 2,4,6-	3	0.7	Down	60	8	Down
VANADIUM	400	600	Up	2000	1000	Down
VINYL CHLORIDE	0.3	0.6	Up	0.4	0.7	Up
XYLENES (Mixed Isomers)	500	300	Down	500	300	Down
ZINC	2500	2500		2500	3000	Up

Up	40	35%	Up	52	46%
Down	39	34%	Down	53	46%
New:	3		New:	3	
No Change	35	31%	No Change	9	8%